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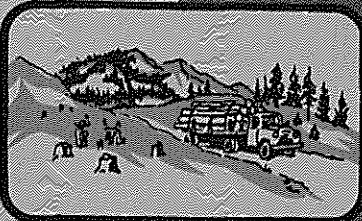
Forest Service

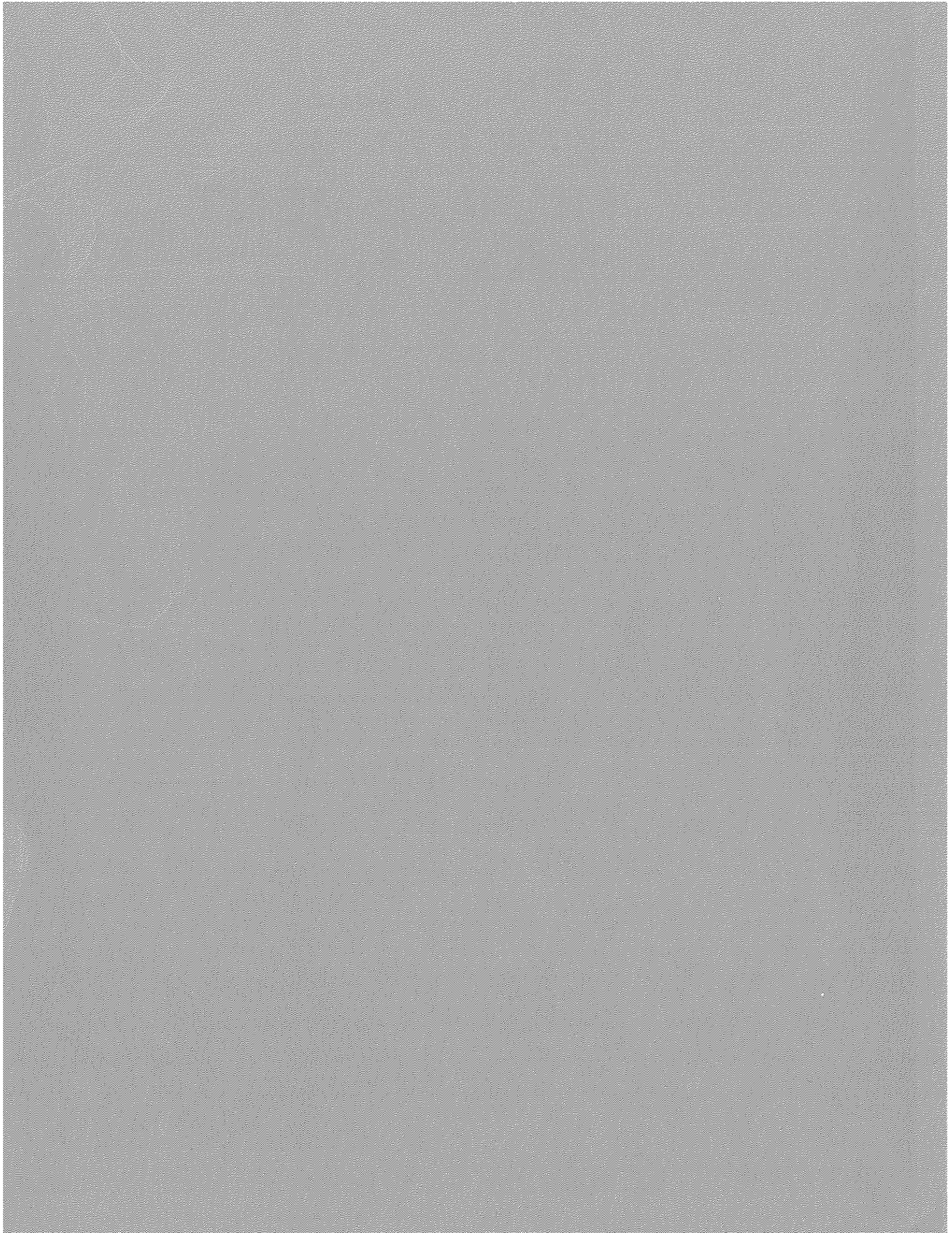
Durango, Colorado



LAND AND RESOURCE MANAGEMENT PLAN

SAN JUAN NATIONAL FOREST





SAN JUAN NATIONAL FOREST

LAND AND RESOURCE MANAGEMENT PLAN

September 1983

PREFACE

PURPOSE OF THE PLAN

This National Forest Land and Resource Management Plan (Forest Plan) was developed to direct management of the San Juan National Forest. The purpose of the Forest Plan is to provide a management program reflecting a mixture of management activities that allows for use and protection of the San Juan National Forest resources while fulfilling legislative requirements and addressing local, regional, and national issues. To accomplish this, the Forest Plan:

- establishes management direction and associated long-range goals and objectives for the Forest for the next 50 years (through the year 2030).
- specifies standards and approximate timing and vicinity of practices necessary to achieve that direction.
- establishes monitoring and evaluation requirements needed to ensure that direction is carried out and to determine how well outputs and effects were predicted.
- will ordinarily be revised on a 10-year cycle or at least every 15 years.

The management direction contained in Chapter III of this Forest Plan consists of goals, objectives and management requirements. The goals are concise statements describing the desired future condition of the San Juan National Forest. They are expressed in broad general terms and are the principal basis for the more specific objectives. Objectives are listed as time-specific measurable results necessary to achieve the more general goals. They provide the basis for the management requirements which establish the environmental quality requirements, natural and depletable resource requirements, and mitigating measures to be followed in implementing the Plan. The goals, objectives and management requirements listed in this Forest Plan were developed in response to various public issues and management concerns as well as appropriate laws, regulations and policies.

The key element for achieving a majority of the goals and objectives of this Forest Plan is a healthy Forest. The current management situation on the Forest is described in Chapter II of this document and in Chapter III of the accompanying final Environmental Impact Statement (EIS). These chapters describe the physical, biological, social and economic environments associated with the Forest. Both documents also discuss numerous needs and rationales for using vegetation treatment as one of the most practical and efficient methods of achieving many of the goals. For example, the majority of aspen stands on the Forest are the result of past fires, many of which are over 80 years old. The relative scarcity of younger aspen stands coincides with the implementation of fire prevention and control activities and the establishment of the Forest Service in 1905. A large majority of these aspen stands (70 percent) will not regenerate themselves but instead will convert to

coniferous species such as spruce unless they are cut, burned, or otherwise treated. Aspen is an extremely important species to wildlife and contributes heavily to the aesthetic quality of mountain scenery. Without some form of vegetation treatment, most aspen stands will be gone within 40 to 50 years.

Consequences of several alternative approaches to managing the Forest are displayed in the final EIS. Results of not managing the Forest vegetation are also discussed. For example, when vast acreages of forest cover are uniformly mature, wildlife diversity is limited to relatively few species dependent on mature forests. Burning, cutting, or otherwise treating vegetation over portions of these areas will increase the vegetation diversity and improve age class distribution, which, in turn, will enhance diversity of wildlife species. Treatment also reduces fuel loads which contribute to catastrophic wildfires. Mature and overmature stands are also more susceptible to epidemic insect attack which can spread over large acreages of uniform forests creating undesirable effects similar to large burns or clearcuts. If age class or species diversity is improved through designed vegetation treatment, risk of wide spread epidemics is reduced. Water yield increases are also primarily dependent upon vegetation treatment. Other outputs and effects such as maintaining visual quality and fuelwood availability are also closely related to the level of vegetation treatment.

Costs associated with vegetation treatment and other activities necessary to achieve the goals of the Forest Plan are significant. It is often difficult to justify treatment of vegetation for the sole purpose of maintaining visual quality, improving wildlife habitat, preventing insect and disease infestations, improving water yield or providing wood products. Doing so may maximize use of a single resource but reduces total outputs and long-term potential of the Forest land base. On an individual resource basis, treatment costs are often too high and the long-term benefits too small to economically justify a project. However, by applying an integrated approach to management which aggregates individual costs and benefits, it is possible to design cost-efficient management activities that achieve desired goals. Goals and objectives associated with vegetation treatment can, in certain situations, be achieved through commercial timber harvests. This has the added benefit of returning revenue to the treasury and helping to maintain existing employment in communities dependent on the timber industry. In other cases, prescribed fire, the fuelwood program, or cutting by Forest Service or volunteer crews may be the most cost-efficient way to treat vegetation.

Many of these activities will require road construction, although use of these roads, rather than the roads themselves, will cause most of the impacts on other resource uses and activities. This Plan emphasizes closely managing use of existing and future roads through such activities as road obliteration, total or seasonal closures, or restricting use to specific purposes. Because of wildlife impacts, increasing road maintenance costs, impacts on non-motorized dispersed recreation, and increased fire risk, the amount of road system open to unrestricted public use cannot be allowed to grow much beyond current levels.

Because of the need for uniform management direction on wildernesses that overlay Forest boundaries, this Forest Plan establishes direction for the entire Lizard Head, South San Juan, and Weminuche Wildernesses as a result of cooperative efforts between Forests.

Preparation of the Forest Plan is required by the Forest and Rangeland Renewable Resources Planning Act (RPA), as amended by the National Forest Management Act (NFMA). Assessment of its environmental impacts is required by the National Environmental Policy Act (NEPA) and the implementing regulations of NFMA [36 Code of Federal Regulations (CFR) 219]. The Forest Plan replaces all previous resource management plans, such as the 1976 Timber Management Plan, prepared for the San Juan National Forest. Upon approval of the Forest Plan, all subsequent activities affecting the Forest, including budget proposals, must be in compliance with the Plan. In addition, all permits, contracts, and other instruments for the use and occupancy of National Forest System lands must be in conformance with the Forest Plan.

LEGISLATIVE BACKGROUND AND EVOLUTION OF NATIONAL FOREST SYSTEM PLANNING

There are numerous legal bases for management of National Forest System lands. Following are some of the more significant laws which must be considered in planning uses for the National Forests. These and other laws are included in the Department of Agriculture Handbook entitled "The Principal Laws Relating to Forest Service Activities."

Creative Act of March 3, 1891 (26 Stat. 1103, 16 USC 471; repealed by 704(a) of FLPMA, 90 Stat. 2792). Allows the President to set apart and reserve National Forests from the public domain.

Organic Act of June 4, 1897 (30 Stat. 35). States "No National Forest shall be established, except to improve and protect the Forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States," (16 USC 475).

The Secretary (Interior) "shall make provision for the protection against destruction by fire and depredations upon public forests and National Forests... and he may make such rules and regulations and establish such service and will insure the objects of such reservations, namely, to regulate their occupancy and use and to preserve the Forests thereon from destruction," (16 USC 551).

Transfer Act of 1905 (33 Stat. 628.16 USC 472). Transferred the Administration of the National Forests to the Secretary of Agriculture.

Multiple Use-Sustained Yield Act of 1960. States the "National Forests are established and administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes," (16 USC 528).

The Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the National Forests for multiple use and sustained-yield of the several products and services

obtained therefrom. In the administration of the National Forests due consideration shall be given to the relative values of the various resources in particular cases. The establishment and maintenance of areas of wilderness are consistent with the purposes and provisions of section 528 to 531 of this title, (16 USC 529).

The Secretary is also authorized to cooperate with State and local governmental agencies in management of National Forests, (16 USC 530).

Wilderness Act of 1964 (16 USC 1131-1136). Provided for establishment and administration of the National Wilderness Preservation System to be administered for the use and enjoyment of the American people in such a manner as will leave the system unimpaired for future use and enjoyment as wilderness.

Wild and Scenic Rivers Act of 1968 (16 USC 1271-1287). Provides for designation as "Wild," "Scenic" or "Recreational" and preserves portions of designated rivers from development. Management of rivers within the System is directed toward preserving the scenic, recreational, geologic, historic, or other value that justified its inclusion in the System.

National Environmental Policy Act (NEPA) of 1969 (42 USC 4321-4335). Declares a National policy of "productive and enjoyable harmony between man and his environment," (42 USC 4321).

The detailed statement requirement of NEPA was designed to disclose to the public, President, Congress and agency decision-maker the environmental consequences of implementation of a proposed action and alternatives to it.

It applies to major federal actions significantly affecting the quality of the human environment.

Federal Land Policy and Management Act of 1976 (90 Stat. 2743). Range management and rights-of-way were dealt with for both National Forest System and public domain lands. For the most part, the statute is directed at lands managed by Bureau of Land Management, Department of the Interior.

Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974, as amended by National Forest Management Act (NFMA) of 1976 (16 USC 1600-1614). This is a comprehensive framework and primary source of direction to the Forest Service to fulfill its mandate to manage the National Forest System (NFS). The central element of the Act is the institution of land and resource management planning as a basic means to achieve effective use and production of renewable resources and a proper balance of the use of NFS lands.

Section 6 of the Act requires the Secretary of Agriculture to prescribe NFS land and resource management planning regulations. The standards and guidelines in these regulations must be incorporated into NFS land and resource management plans.

During the early 1900's, most National Forest System lands were inaccessible, public demands for goods and services were low, and conflicts among resources were minor. Priority was given to protecting these public lands from fires, damaging insects and diseases, and unauthorized use. Resource production and use served local rather than regional or national needs. Most Forest Service planning in that era centered on specific work plans for forest land rehabilitation, protection, and reforestation.

By the late 1930's, however, there existed a general public awareness that more intensive management of the National Forests, and the use of their various renewable resources on a sustained-yield basis, should also serve the national interest. This prevalent philosophy, coupled with a need for vital timber during World War II, spawned a dramatic expansion of National Forest resource management and utilization in the 1940's and 1950's.

Although early laws governing the establishment and administration of the National Forests referred only to timber and water resources, the other resources; wildlife, forage, and outdoor recreation, have always been protected and managed. By 1939, the Forest Service had made clear its policy to administer the National Forests on multiple use principles.

Recognizing the lack of specific statutory direction to manage all the resources of the National Forests under multiple use principles, the Forest Service proposed a multiple use act in the late 1950's. Passage of the Multiple Use-Sustained Yield Act of 1960 provided Congressional endorsement of the Forest Service policy and practice of equal consideration of all National Forest renewable resources.

Land management planning was formalized into a distinct process upon passage of the Multiple Use-Sustained Yield Act. Until shortly after passage of the National Environmental Policy Act of 1969, this process was commonly referred to as "multiple use plans." Separate plans were made for each National Forest Ranger District.

These multiple use plans usually zoned National Forest System land and included specific coordinating requirements to ensure compatibility of resource uses. They did not set resource development goals. Such goals were established by separate resource development plans prepared for each National Forest. The Ranger District multiple use plans were used to coordinate the actions taken to achieve the objectives of the National Forest System resource development plans.

In the early 1960's, another factor had also entered the resource picture; intensified public concern for environmental policy. Suddenly, it seemed, the Nation realized that clean air, clean water, and natural beauty were just as important to its standard of living as industrial products. Increased concern for the Nation's forest lands were part of this awakening environmental consciousness. Many Americans became aware of the National Forest System and realized that, although these public lands contained substantial amounts of the Nation's remaining natural resources, there were limits to their uses.

The desire for a quality environment, however, did not lessen the need for forest products and services from the National Forests. On the contrary, while concern for the environment reached new heights, so did the demand for products and services. One result of this was the passage of the 1964 Wilderness Act. This Act created the National Wilderness Preservation System and provided for the designation of Federal land to be preserved in their natural state.

By the mid-1960's, the Forest Service was caught in a dilemma. On one hand, conflicting demands for forest resources were increasing rapidly; on the other hand, the renewable resource base was perceived as shrinking with the implementation of the Wilderness Act. Some critics claimed that management of the National Forest System was out of balance, that some uses were being increased at the expense of others, and that the Forest Service was ignoring its mandate to manage the National Forest System for multiple uses. And, seemingly, the public wasn't being given a chance to effectively influence the Forest Service decision-making process. The Forest Service land management planning process changed in response to these public concerns and to the National Environmental Policy Act (NEPA) of 1969.

In August 1974, Congress enacted the Forest and Rangeland Renewable Resources Planning Act (RPA). Although it did not significantly change existing Forest Service land management planning procedures, it made the development and maintenance of National Forest System land and resource management unit plans statutory requirements. It reemphasized that an interdisciplinary approach be used in the development and maintenance of land management plans. It required that periodic comprehensive national programs be developed that would integrate all Forest Service activities. And, it more directly involved Congress in evaluating Forest Service programs and in assigning priorities. The RPA also provided for a periodic assessment of the Nation's renewable resources, including those of the National Forest System. This assessment provides the basic information for resource management planning at national, regional, and local levels.

The National Forest Management Act of 1976 amended RPA to provide additional statutory direction on the preparation and revision of National Forest System land and resource management plans. Major highlights of NFMA are land management planning, timber management actions, and public participation in Forest Service decision-making. Also featured are requirements for coordination with planning processes of State and local governments and other Federal agencies, and an interdisciplinary approach to plan development and maintenance. Land management planning direction is the core of the Act. Regulations promulgated in 1979 and revised in 1982 prescribe the process for development and revision of land management plans.

The preceeding discussion illustrates the evolution that has occurred in the laws, regulations, and policies directing National Forest System planning. A similar evolution has occurred in planning technology. Recent advances in inventory and analysis techniques have greatly expanded the ability of Forest Service planners to incorporate much broader considerations into Forest planning.

Changes in planning policies and procedures have accelerated during the past few years and will continue into the future. These policies and procedures are evolving so rapidly that significant changes often occur between the start and finish of individual Forest Plans. Succeeding Forest Plans are much improved over those prepared just a few months earlier.

It is unrealistic to expect the rapid evolution in planning policies and technologies to stop. Furthermore, it is inappropriate to consider stopping or slowing the Forest Planning process pending a solidification of these policies and procedures. In addition, considerations such as the National Forest Management Act, Forest Service policies and public demands require Forest Plans to be completed as rapidly as possible.

For these reasons, it is important to proceed with Forest Plan preparation. The 1982 Planning Regulations contain a "grandfather" clause allowing plans started under the 1979 regulations to be completed without starting over and using the new requirements. The Plans will comply with existing laws and, to the fullest extent possible, with current policies and regulations. Forest Plans will be modified to incorporate any new requirements during future revisions.

RELATIONSHIP TO OTHER PLANNING LEVELS AND STUDIES

Development of a Forest Plan occurs within the framework of U. S. Forest Service regional and national planning. The RPA Program sets the national direction and output levels for National Forest System lands based on suitability and capability information from each Forest Service Region. Each Region disaggregates its share of the national production levels among the Forests of the Region. This distribution is made in a Regional Guide and is based on the detailed site-specific information gathered at the Forest level. The Rocky Mountain Regional Guide was made available to the general public on June 1, 1983.

Each Forest Plan, in turn, either validates or provides a basis for changing production levels assigned by the Region. Activities and projects are planned and implemented by the Forest to carry out direction developed in the Forest Plan. Information from Forest Plans of all Forests in the Region will be used in revising the Regional Guide.

The relationship of this Forest Plan to the Roadless Area Review and Evaluation (RARE II) process was resolved by Public Law 96-560, enacted December 22, 1980. This Act, also called the Colorado Wilderness Act, provided for some additions to the existing Weminuche Wilderness and established the Lizard Head and South San Juan Wildernesses. It also designated the West Needle (15,800 acres), the Piedra (41,500 acres) and the South San Juan Wilderness Expansion (32,800 acres) as Wilderness Study Areas to be studied and a determination made as to their suitability or unsuitability for wilderness designation. Determinations for these areas are made in this plan and accompanying final EIS.

Legislative final EIS's will be prepared for each Wilderness Study Area. These final EIS's with the Regional Forester's recommendations will receive further review and possible modification in the offices of the

Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. After the President transmits the Administration's final recommendations to Congress, the legislative final EIS's will be filed with the Environmental Protection Agency and distributed to the public. Final decisions on wilderness designation have been reserved by Congress. The wilderness characteristics of the areas will be protected until Congress acts.

The Colorado Wilderness Act also specifies that areas of the Forest reviewed in the RARE II Final Environmental Impact Statement and not designated as either wilderness, or requiring further study need not be managed for the purpose of protecting their wilderness characteristics. This law has eliminated any need to evaluate additional areas for wilderness until the first revision of this Forest Plan.

In the National Materials and Minerals Policy Research and Development Act of 1980 and the Energy Security Act of 1980, Congress has directed the Forest Service to encourage private investors in developing domestic mineral resources and to proceed in making recommendations to the Bureau of Land Management regarding leasing proposals on National Forest System lands. Minerals management direction is contained in the Forest Direction Section of Chapter III of this Plan.

Congress has also directed that portions of the Dolores, Piedra and Los Pinos Rivers be studied as potential components of the National Wild and Scenic Rivers System. The Environmental Impact Statements and Study Reports have been prepared. Until congressional action is taken to determine their status, the Forest Plan will determine management for the rivers that will protect the values which caused them to be eligible for Wild and Scenic classification.

An Environmental Impact Statement (EIS) was prepared by the Bureau of Reclamation, with Forest Service coordination, for construction of the McPhee Reservoir and related developments involved in the Dolores Project. This EIS was approved in 1977, and construction work has begun. The major involvement of the San Juan National Forest in this project is the inclusion of approximately 3,800 National Forest acres within the project boundary, Forest Service input into planning new recreation and wildlife developments on the reservoir shore, and the eventual responsibility of the Forest Service to manage recreation use and wildlife habitat after the project is completed in 1985.

Budget proposals for fiscal year 1985 will be nearing completion for submission to Congress by the time this Forest Plan can be implemented in fiscal year 1984. Included in these proposals are operation, maintenance, and investment projects costs for the continued management of the San Juan National Forest.

Investment projects, because of their size and complexity, are phased in over a period of three to five years. For example, timber sales to be sold in 1984 are normally inventoried in 1982, marked and cruised in 1983, and appraised and sold in 1984. Roads, campgrounds, wildlife habitat projects and grazing systems are phased in the same way. The

number and type of disciplines (e.g. foresters, wildlife biologists, engineers) needed in the organization are also tied directly to these projects. In addition, there are many existing contracts or permits for timber sales, special uses and grazing. Duration of these contracts are from several months to several years as in the example of a special use road.

When the Forest Plan is implemented in fiscal year 1984, the time needed to bring activities into compliance with the Forest Plan will vary depending on the type of project. Most operation and maintenance activities, projects in the first year of development, new special use proposals and transfers of existing permits can be brought into compliance with the Forest Plan within the first year of implementation. Projects in the second to fifth year of implementation as well as many contractual obligations will continue as originally scheduled.

PUBLIC REVIEW AND APPEAL RIGHTS

The opportunity to request an administrative review of the Forest Plan and Environmental Impact Statement is covered in the Regulations [36 CFR 219.10(d)]. These regulations state:

The provisions of 36 CFR Part 211, Subpart B apply to any administrative appeal of the Regional Forester's decision to approve a Forest Plan. Decisions to disapprove a Plan and other decisions made during the Forest planning process prior to the issuance of a record of decision approving the Plan are not subject to administrative appeal.

Comments regarding this Plan should be sent to:

Forest Supervisor
San Juan National Forest
701 Camino del Rio
Durango, Colorado 81301

San Juan National Forest
Land and Resource Management Plan

TABLE OF CONTENTS

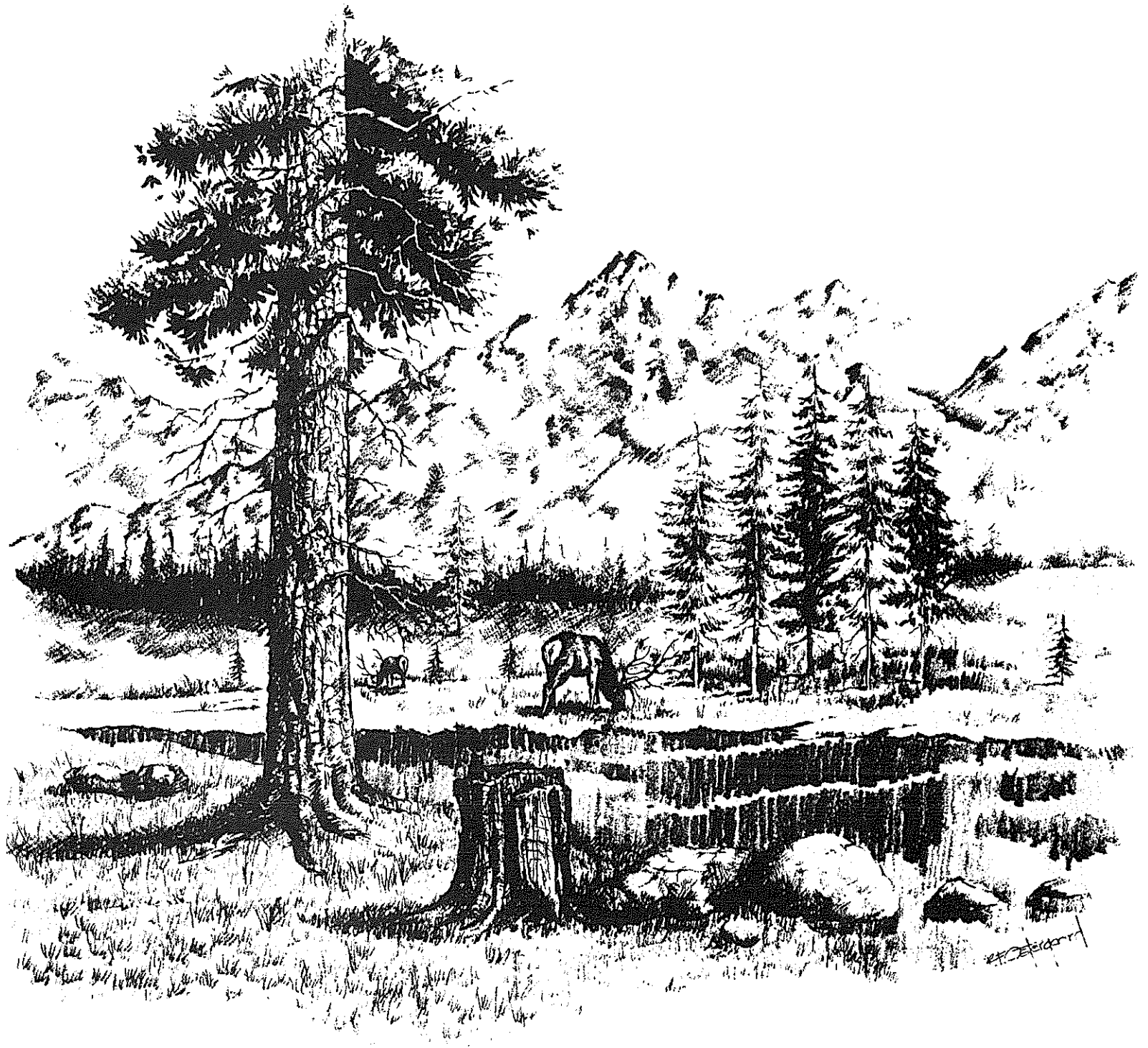
	<u>Page</u>
Preface	i
Table of Contents	xi
I. INTRODUCTION	I-1
Organization of the Forest Plan Document	I-1
Location of the Forest	I-2
II. MANAGEMENT SITUATION	II-1
The Present	II-1
Physical and Biological Setting	II-1
Economic Setting	II-2
Social Setting	II-3
Past and Current Management and Supply Potential	II-8
Resource Elements	II-8
Support Elements	II-25
Need to Establish or Change Management Direction	II-34
The Future	II-36
Physical and Biological Future	II-37
Social and Economic Future	II-43
Research Needs	II-44
III. MANAGEMENT DIRECTION	III-1
Implementation	III-1
Forest Direction	III-3
Goals	III-3
Objectives	III-6
Management Requirements	III-10
Diversity on National Forests	III-11
Wild and Scenic River Management	III-13
Cultural Resource Management	III-14
Visual Resource Management	III-15
Recreation Site Construction and Rehabilitation	III-17
Management of Developed Recreation Sites	III-18
Dispersed Recreation Management	III-19
Recreation Management (Private and Other Public Sector)	III-22
Wilderness Area Management	III-22
Wildlife and Fish Resource Management	III-26

Table of Contents (Continued)

Wildlife Habitat Improvement and Maintenance	III-27
Wildlife and Fish Cooperation With Other Agencies	III-29
Range Resource Management	III-30
Range Improvement and Maintenance	III-34
Silvicultural Prescriptions	III-35
Reforestation	III-43
Timber Stand Improvement	III-46
Riparian Area Management	III-46
Water Uses Management	III-47
Water Resource Improvement and Maintenance	III-47
Minerals Management	III-48
Mining Law Compliance and Administration	III-50
Minerals Management - Oil, Gas, and Geothermal	III-51
Minerals Management - Coal, Leasable Uranium and Non-energy Common Minerals Materials	III-59
Special Use Management (Non-recreation)	III-68
Rights-of-Way and Land Adjustments	III-69
Property Boundary Location	III-71
Soil Resource Management	III-72
Transportation System Management	III-75
Arterial and Collector Road Construction and Reconstruction	III-77
Local Road Construction and Reconstruction	III-78
Road Maintenance	III-79
Trail System Management	III-79
Trail Construction and Reconstruction	III-82
Fire Planning and Suppression	III-83
Escaped Fire Suppression	III-83
Fuel Treatment	III-83
Vegetation Treated by Burning	III-84
Air Resource Management	III-84
Insect and Disease Management/Suppression	III-84
Management Area Direction	III-85
Management Area Summary	III-86
Prescriptions for Management Areas	III-87
<u>Management Area</u>	<u>Emphasis</u>
1A Developed Recreation Sites	III-88
1B Winter Sports Sites	III-93
1D Utility Corridors	III-101
2A Semi-primitive Motorized Recreation	III-105
2B Rural/Roaded Natural Recreation	III-118
3A Semi-primitive Non-motorized Recreation	III-130
4B Wildlife, Favor Indicator Species	III-140
5B Big Game Winter Range	III-159
6B Livestock Grazing	III-179
7C Wood-Fiber Production on Steep Slopes	III-194
7E Wood-Fiber Production on Gentle Slopes	III-209
8A Wilderness - Pristine	III-225

Table of Contents (Continued)

8B	Wilderness - Primitive	III-229
8C	Wilderness - Semi-primitive	III-236
8D	Wilderness - High Density	III-243
9A	Riparian Areas	III-250
9B	Increased Water Yield	III-265
10A	Research Natural Areas	III-276
10C	Special Area - Chimney Rock Archaeological Area	III-281
10D	Wild and Scenic River Corridors	III-287
IV. MONITORING AND EVALUATION		IV-1
V. INDEX		V-1
APPENDICES		
A.	Priorities for Implementation by Management Areas	A-1
B.	Ten-Year Timber Sale and Reforestation Summaries	B-1
C.	Ten-Year Arterial, Collector, and Local Roads Needing Capital Investment Work	C-1
D.	Ten-Year Trail Construction and Reconstruction Summary	D-1
E.	Proposed Mineral Withdrawals and Revocations	E-1
F.	Lands Capable, Available, and Suitable for Timber Production and Inventory Summary for the Forest Plan	F-1
G.	Roads and Trails to Remain Open to the Public for Motorized Use Within Management Area 3A	G-1
H.	Standard and Special Stipulations for Minerals Leasing	H-1
I.	Fire Management Analysis	I-1
MANAGEMENT AREA MAP - (envelope attached to back cover).		



1. introduction



CHAPTER I

INTRODUCTION

ORGANIZATION OF THE FOREST PLAN DOCUMENT

This National Forest Land and Resource Management Plan (Forest Plan) establishes the long-term direction for managing the San Juan National Forest. It also serves to inform prospective users, as well as other interested publics, that any occupancy or use of the National Forest System lands within the San Juan National Forest must be consistent with the management requirements listed in the Forest and Management Area Direction sections of the Forest Plan.

The Forest Plan consists of this document and management area maps. Maps illustrating locations of management areas, proposed timber harvests through 1990, major roads proposed for construction or reconstruction through 1990, and lands being considered for exchange with the Bureau of Land Management are in an envelope inside the back cover of this document. In addition, implementation maps showing estimated timing and vicinity of proposed management practices during the first ten years will be maintained in the appropriate Ranger District Offices.

Chapter II describes the present condition of the Forest land and resources and how they will be managed to provide the outputs of goods, services and healthy Forest environment resulting from implementation of the Plan.

Chapter III contains management direction and is divided into three sections. The first section explains how the Forest Plan is to be implemented. Section Two specifies the goals and objectives for managing the National Forest System lands and resources. This section also contains Forest Direction which details overall management requirements that must be maintained during implementation of the Plan. Section Three includes management prescriptions detailing the management requirements for specific land areas of the Forest called Management Areas. The management requirements listed in Forest Direction are applied in addition to the management requirements for individual management areas. Individual management areas are identified on the Management Area Maps located inside the back cover of this Plan.

Chapter IV lists and describes the activities and techniques that will be used to monitor and evaluate implementation of the Forest Plan. Chapter V is an index for the Forest Plan.

The analysis that supports the Forest Plan is contained in the accompanying final Environmental Impact Statement (EIS). The Forest Plan and the final EIS are companion documents; neither is complete in itself. The final EIS describes alternatives considered in arriving at the proposed Forest Plan and assesses environmental effects of implementing the Plan and its alternatives. A list of people who prepared the Plan appears in Chapter V of the EIS. A Glossary and Reference List to aid in interpreting the Forest Plan are included in the appendices to the EIS.

The Environmental Impact Statement prepared for the Forest Plan will be used in tiering (40 CFR 1502.20 and 1508.28) future environmental assessments (EA's). Tiering means that EA's prepared for projects arising from the Forest Plan will incorporate this Environmental Impact Statement and associated documents by reference, rather than repeating information. Environmental assessments carried out for specific projects being implemented under direction of this Forest Plan will therefore be site specific only.

This document displays management direction for the following wildernesses:

Name	Net National Forest Acres	Administrative Unit
Lizard Head Wilderness	20,816 <u>20,342</u> 41,158	San Juan National Forest Uncompahgre National Forest
Weminuche Wilderness	294,457 <u>164,715</u> 459,172	San Juan National Forest Rio Grande National Forest
South San Juan Wilderness	39,783 <u>87,902</u> 127,685	San Juan National Forest Rio Grande National Forest

Management direction for the above wildernesses was established as a cooperative effort between Forests to ensure uniform management decisions within each wilderness. Each Forest will continue to administer those portions of wildernesses within their respective boundaries. Management area direction for wildernesses is displayed in the Forest Direction and in prescriptions for Management Areas 8A through 8D in Chapter III. The accompanying Management Area Maps also display management area direction for the wildernesses. Alternative management direction for the wildernesses along with environmental effects are disclosed in the accompanying final EIS.

The Record of Decision for the final EIS will include the management decisions for the Uncompahgre and Rio Grande National Forest portions of the Lizard Head, Weminuche and South San Juan Wildernesses.

LOCATION OF THE FOREST

The San Juan National Forest is located in southwestern Colorado. It is an administrative unit of the Rocky Mountain Region of the Forest Service, U. S. Department of Agriculture. Portions of this Forest lie within La Plata, Montezuma, Dolores, San Juan, Archuleta, San Miguel, Hinsdale, Mineral, Conejos and Rio Grande Counties. (See Figure I-1.)

SAN JUAN NATIONAL FOREST

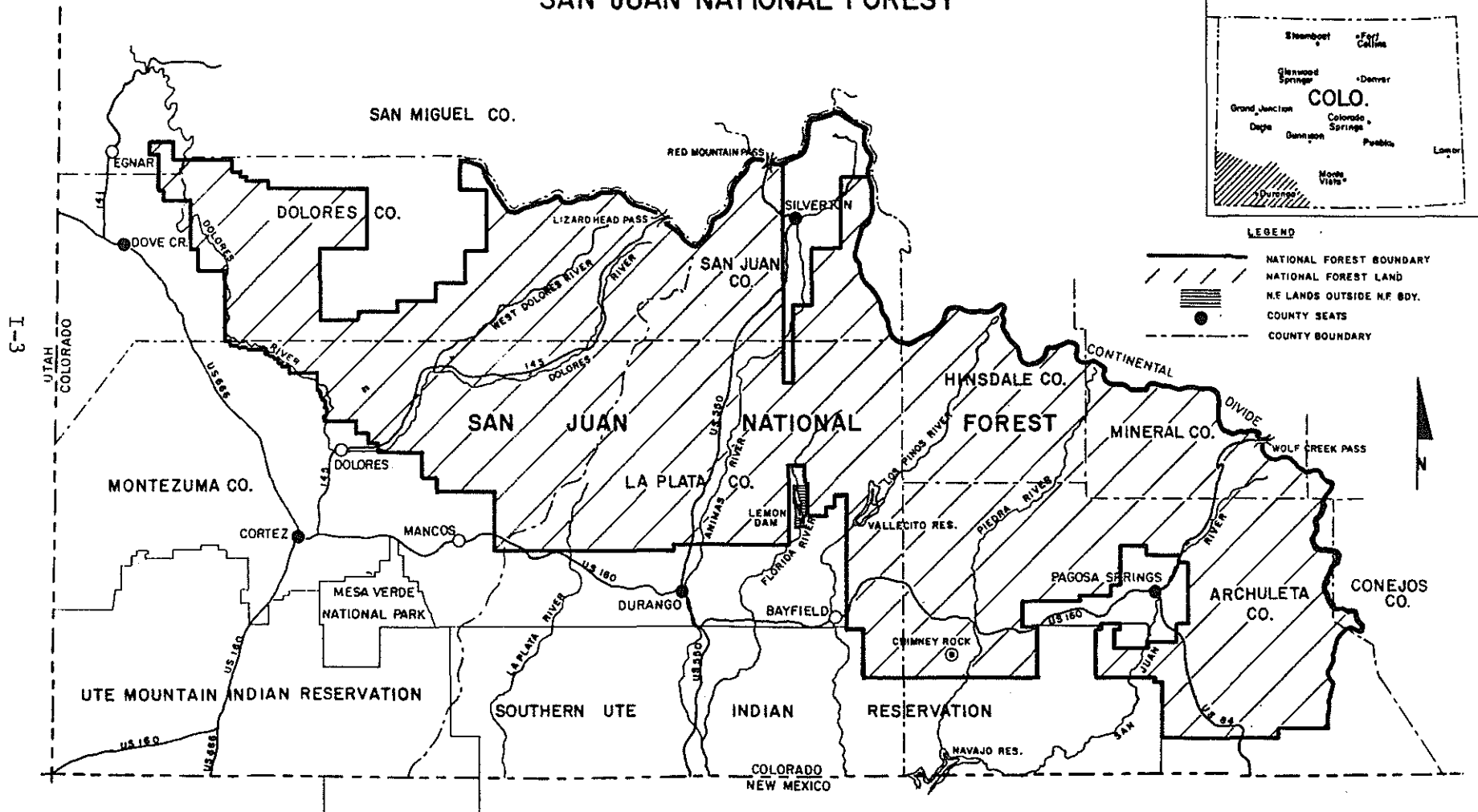
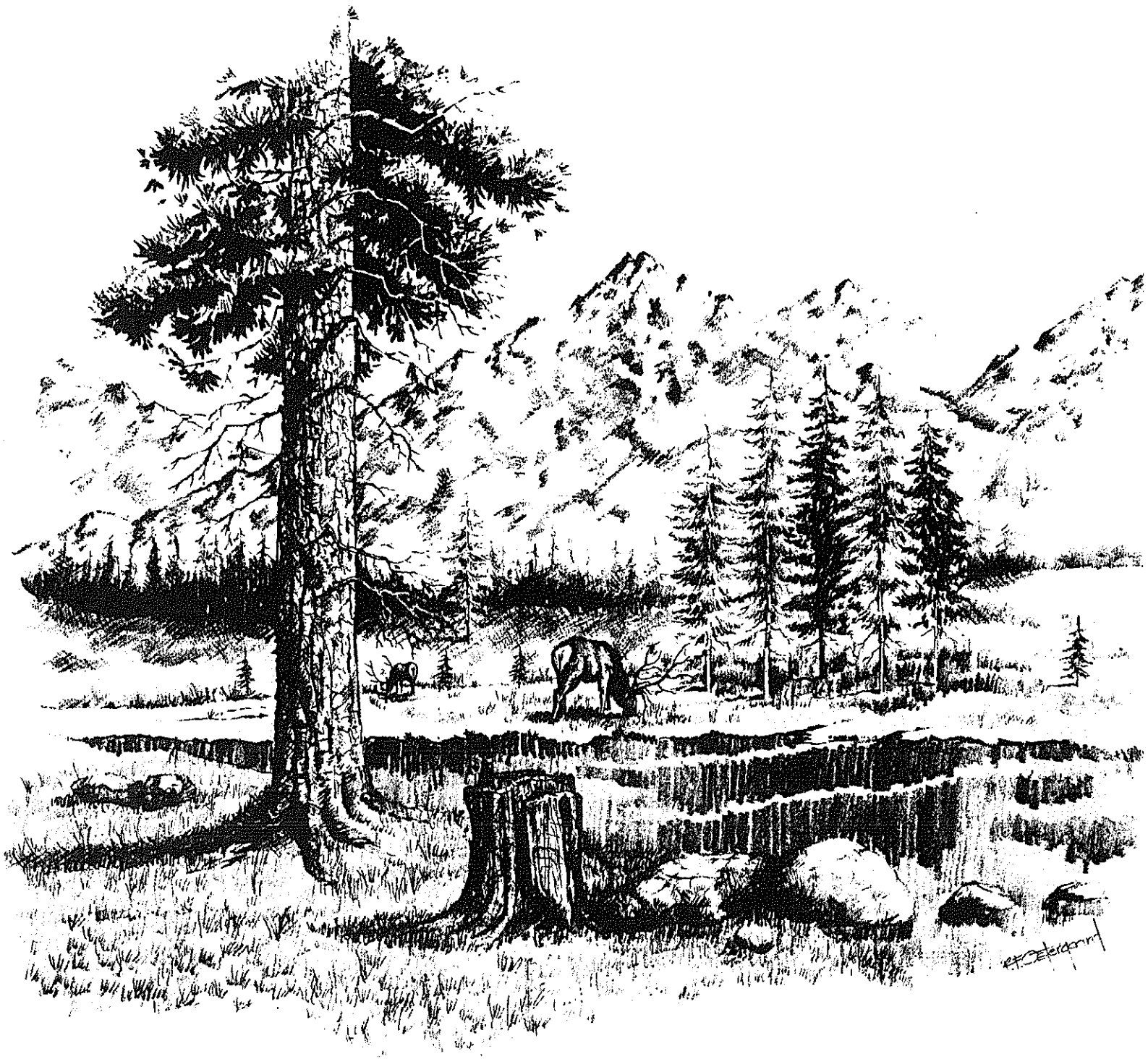


FIGURE I-1

The Forest is geographically separated from the rest of Colorado by the San Juan Mountains and lies near no major population center. The total population of the five-county area including La Plata, Montezuma, Dolores, San Juan and Archuleta Counties, surrounding the Forest is approximately 50,000 people. Less than 500 people live in those portions of San Miguel, Hinsdale, Conejos, and Rio Grande Counties that are within the Forest boundary.



II. management situation

CHAPTER II

MANAGEMENT SITUATION

This chapter describes the San Juan National Forest as it is today and how it is expected to change under implementation of the Forest Plan. Included is a description of the setting in which the Forest is managed, its resources and uses, demands placed on the Forest, and how those demands will be met through management of the Forest. The information used to create this description is a result of an analysis that determined supply and demand conditions as well as changes needed to correct present problems and prevent future ones. A more detailed assessment is given in Chapter III of the accompanying final Environmental Impact Statement.

The second part of this chapter summarizes future conditions under direction of the Forest Plan and specifies both the type and the general location of activities that will occur. Expected future conditions of the Forest also reflect the way in which proposed management direction addresses planning questions.

The last part of the chapter summarizes research needs which were identified through the planning process.

THE PRESENT

PHYSICAL AND BIOLOGICAL SETTING

The San Juan National Forest covers 1,867,782 acres in southwestern Colorado. The boundary of the Forest encompasses the northeasterly portions of the San Juan and Dolores River basins. The boundary generally follows the crest of the Continental Divide and the Wilson Mountains on the east and north. The south and west boundary extends stairstep fashion from Chromo, Colorado, in the southeast to a point 40 miles northwest of Dolores, Colorado.

The San Juan River system drains most of the San Juan National Forest, except that part of the Forest in the Dolores River drainage. The Mancos, Animas, Los Pinos and Piedra Rivers are major tributaries of the San Juan River. Both the Dolores and the San Juan Rivers eventually flow into the upper Colorado River.

The San Juan National Forest is located where the Southern Rocky Mountain physiographic province joins the Colorado Plateau province. The Forest has diverse topography consisting of mesas, deep canyons, foothills and rugged mountains. The San Juan Mountains dominate the eastern end of the Forest. The La Plata, Rico, and Wilson Mountains occur in the central and west portions of the Forest. Elevations range from just above 6,000 feet to peaks over 14,000 feet.

General topography and geology of the Forest resulted from the domal uplift of a 10,000 square mile area which was subsequently eroded by a combination of water and extensive alpine glaciation. Volcanic activity, faulting and sagging have also been part of the geological process.

The San Juan National Forest includes four major climatic and vegetative zones: lower montane forest, upper montane forest, subalpine forest, and alpine tundra. Wildlife species whose range extends throughout all four vegetation zones include mule deer, elk, bighorn sheep, mountain lion, coyote, bear, beaver, and marten. Game fish species include cutthroat, rainbow, brook, and brown trout, northern pike, and kokanee salmon.

Vegetation

The vegetation of the San Juan National Forest, through its species composition, size, color, texture, form, and distribution of natural and treated stands, determines the dominant character and appearance of the Forest. Management of the Forest is closely linked to vegetation and its relationship to other resource elements.

Past control of fire and low levels of vegetation treatment have resulted in large areas of the Forest achieving a mature vegetation condition, characterized by low vigor, high mortality, insect and disease infestations, and greater risk of wildfire. A more balanced distribution of age and size classes improves vegetation variety, vigor and growth, reduces the risk of disease and insect problems, reduces the potential for wildfire, and improves wildlife habitat and visual quality. In addition to improving the health and vigor of the Forest, vegetation treatment also results in more and better wood products to serve local and national needs.

About 24 percent of the Forest is designated wilderness, wilderness study areas, research natural areas, and wild and scenic river corridors. Natural succession will be the dominant process of vegetation change in these areas. The remaining 76 percent of the Forest is available for vegetation treatment.

The important vegetation types and their approximate percentages on the Forest are: aspen, typically mature to over-mature, 16.1 percent; mixed conifer, many mature and over-mature stands, 9.6 percent; ponderosa pine, mostly mature, 18.4 percent; spruce-fir, mostly intermediate to mature, 28.0 percent; meadows and grasslands, 8.7 percent; brush, 5.7 percent; pinon/juniper, 0.3 percent; riparian, 2.1 percent, and sagebrush, 0.7 percent. The remaining 10.4 percent is mostly water and rock. Chapter III of the final Environmental Impact Statement provides a detailed discussion of these vegetation types.

ECONOMIC SETTING

Area of Influence

The area of social and economic influence of the San Juan National Forest includes Archuleta, Dolores, La Plata, Montezuma and San Juan Counties in southwestern Colorado. The Forest covers 1.5 million acres in this five-county area, and activities and outputs are estimated to be directly or indirectly responsible for approximately 12 percent of the total employment within this area of influence. While portions of the

San Juan National Forest lie within Conejos, Hinsdale, Mineral, Rio Grande and San Miguel Counties, residents relate more strongly to communities and National Forests north and east of the Continental Divide.

Population

The area of influence is separated from the front range population centers of Colorado by the San Juan Mountains. The area's total population is about 50,000 people. Populations declined, in some cases dramatically, in all five counties between 1960 and 1970. This trend reversed itself spectacularly after 1970, and projected growth is expected to more than double the five-county area's population over the next 30 years.

Almost half of the area's population lives in Durango, Cortez, Pagosa Springs and the seven other incorporated towns in the area of influence. Subdivision growth around Durango, Cortez and Pagosa Springs is rapid and rural "bedroom" communities are developing.

Employment and Income

The average per capita income for the five-county area in 1973 was about \$3,630; by 1978 it had risen to \$5,450. After adjusting for inflation, this represents almost a ten percent increase in per capita real income. Total income earned by all residents also increased markedly from 1973 to 1978, except in Dolores County, which had only a seven percent nominal increase. After adjusting for inflation, per capita and total real income in Dolores County declined more than 20 percent over that five-year period.

Unemployment in 1980 was low in all counties except Archuleta, which experienced a jobless rate of nearly 12 percent. Total labor force in the five-county area in April 1980 was estimated to be 23,950, of which 22,600 were employed, for an overall unemployment rate of 5.6 percent, which is slightly above the Colorado average of 3.6 percent. About 28 percent of this employment, or approximately 6,740 jobs, relates to activities and outputs on the San Juan National Forest. Based on an employment to population ratio of 1 to 2.4 for the area, it is estimated that these jobs support about 15,100 residents of the five-county area.

SOCIAL SETTING

Social Resource Units

The Forest Service has geographically subdivided the Rocky Mountain Region into Social Resource Units (SRU's). Social Resource Units serve as a framework for assessing social, cultural, and economic interactions within the physical resources base. Social Resource Units define areas characterized by common issues. As these issues are clarified, goals can be set by the public, government, and business to create human, economic, and environmental benefits. The Social Resource Unit concept

is used to address broad regional, rather than Forest issues. The units are defined by natural boundaries such as mountain valleys and river basins and by the way people live such as settlement patterns and agricultural activity.

The Forest lies within the Region's Social Resource Unit K. This unit is shown on Figure II-1; it lies in a physically isolated area separated from the rest of Colorado by the Continental Divide to the east and the San Juan Mountain Range on the north. The major portion on the southern part of the Unit is Southern Ute and Ute Mountain Ute Indian Reservation. The desert of Utah isolates the Unit from other settlements to the west.

Human Resource Units

The Forest has delineated smaller units of analysis within the boundaries of Social Resource Unit K, called Human Resource Units (HRU's). A Human Resource Unit is an area characterized by unique patterns of life-styles, economic conditions, institutional arrangements, and topography. HRU's vary in size but are typically larger than individual towns and communities, and they may cross political jurisdictions.

There are three HRU's identified on the Forest. They are also shown in Figure II-1. The Pagosa, Animas and Montelores HRU's were designated to help design management actions at the National Forest and Ranger District levels that would be responsive to local issues, conditions and needs.

The following discussion briefly describes each HRU by identifying the general history of the area, as well as lifestyles, attitudes, beliefs, values, social organization, and significant population characteristics.

Montelores HRU

The Montelores HRU lies primarily in Montezuma and Dolores Counties, although a portion of it extends eastward into La Plata County, and northward into San Miguel County. The western border of the unit is the Utah state line, with the New Mexico State line forming the southern border. The northern boundary runs from a point a few miles north of the Dolores County line southeastward to a point a few miles east of Lizard Head Pass. The eastern boundary forms the western boundary of the Animas HRU. This HRU is perceived by the residents as the "Montelores Area."

Lifestyle - The entire area is strongly oriented toward a rural lifestyle. Cortez is the only town with over 1,000 people, but it is a community oriented toward tourism, agriculture, mineral development and energy. Cortez is the trade center of the HRU, and Montezuma County is the second most populous county in southwestern Colorado. The importance of mining, energy and timber industries has fluctuated widely in the last 30 years but is presently on the rise.

HUMAN RESOURCE UNITS

San Juan Nat'l Forest

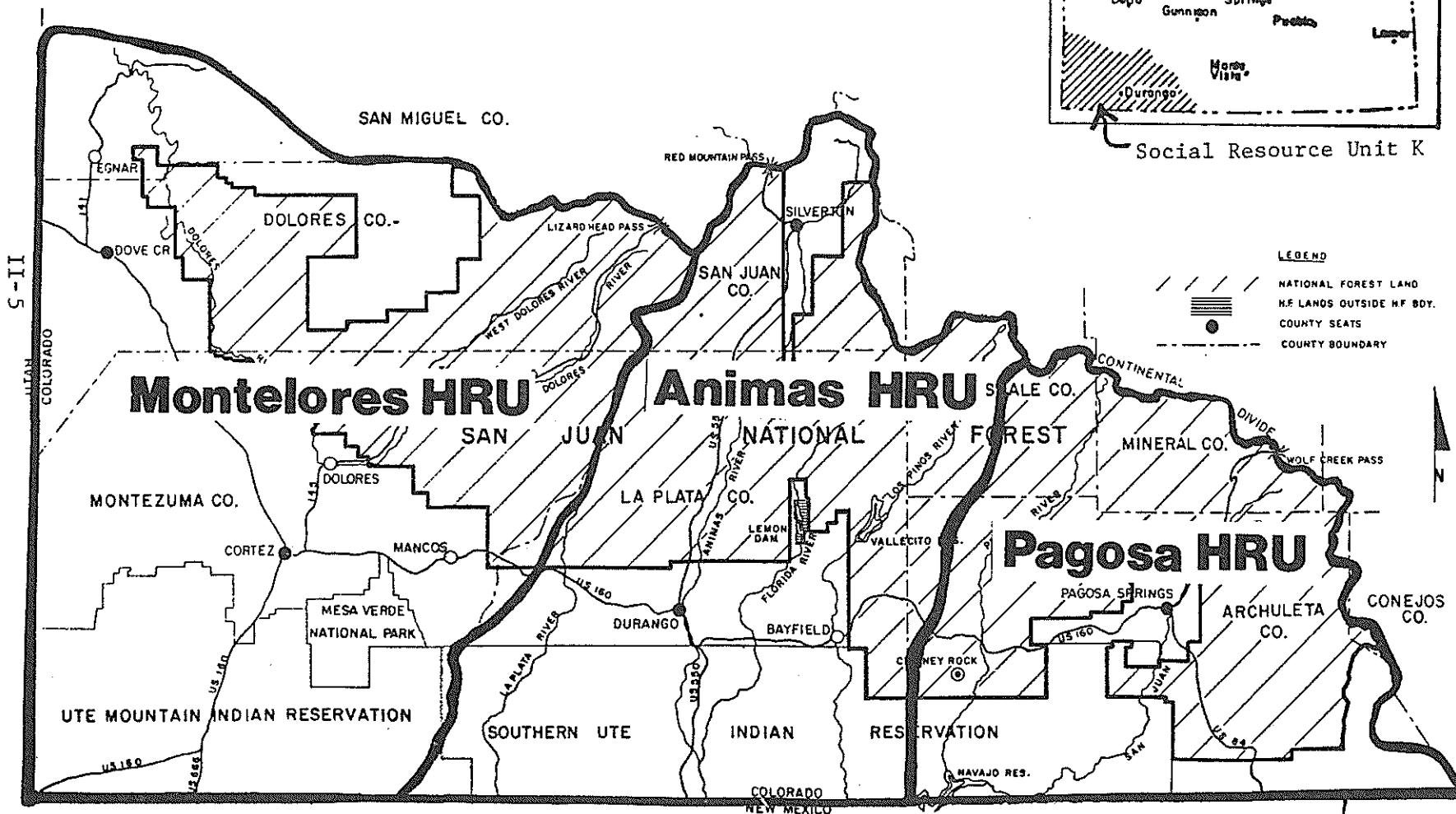


FIGURE II-1

Human Resource Units

Work routines are different within the town of Cortez than in the rest of the area. Light industry, government, tourism and retail trade dominate Cortez, and places of employment are generally in town. For the rest of the HRU, employment is more agricultural oriented and is also more seasonal. Unemployment increases during the winter. Big game hunting is an important event and attracts a large number of out-of-area hunters. Major economic events will be the development of McPhee Reservoir and energy projects.

Summer recreation focuses on fishing, camping, hiking, and other types of recreation opportunities on National Forest System lands. No major ski areas exist; however Hesperus and Stoner are popular with local residents, and the area is within commuting distance of Telluride and Purgatory. Winter recreation is on the increase, especially cross-country skiing and snowmobiling.

Attitudes, Beliefs and Values - The predominant attitudes are that natural resource development and utilization is good and is necessary for growth and progress.

Social Organization - All areas in the HRU are covered by protective services such as county sheriff's offices, fire districts, and search and rescue. Medical facilities, including a full service hospital, are located in Cortez, but serious cases requiring specialized care are usually referred to facilities in Durango or Farmington, New Mexico. The Ute Mountain Ute Indian Reservation is headquartered at Towaoc, about 15 miles southwest of Cortez.

Population and Land Uses - Despite a growing population, subdivision development has not caused loss of big game winter range or National Forest access problems in the Montelores HRU that it has elsewhere. Property values in the area have increased.

Animas Human Resource Unit

The Animas Human Resource Unit (HRU) is bounded on the west by a line running essentially from Red Mountain Pass southwest to the New Mexico border. This line crosses U. S. Highway 160 just west of Hesperus. The northern boundary of the HRU is the Continental Divide. The eastern border runs south from the Divide a few miles east of the Los Pinos River down to the New Mexico line.

The entire HRU is dependent on Durango as a primary trade and service center and as a recreation visitor entry point. The bulk of the unit is in La Plata and San Juan Counties.

Lifestyle - The Animas HRU is moderately urbanized, especially in the Durango area, but the rural mountain lifestyle still prevails. Durango is the primary trade center, and is the "gateway" to the HRU and to the the San Juan National Forest. Logging, ranching and mining are directly related to National Forest activities in the HRU, and many residents spend large amounts of their leisure time in the Forest as well.

Attitudes, Beliefs and Values - Animas HRU residents represent a wide cross-section of attitudes, beliefs and values. The community is diverse, cosmopolitan and easily polarized on issues, including those relating to natural resource management.

Social Organization - The standard social services available in most small American cities are found in Durango, including a four-year college. Because of its diverse population and economic base, the Animas HRU is not as vulnerable to social disruption from projects such as mineral or ski area development as most other communities in south-west Colorado might be.

Population and Land Uses - Population increases of the past decade have created a problem with the conversion of agricultural lands to residential and commercial uses, particularly when converted lands are adjacent to the National Forest. Loss of access and key big game winter range are two adverse effects. Recreational use of the National Forest is growing as populations increase, with much of the increased use occurring on Forest lands in the Animas HRU. Vegetation treatment is necessary to maintain the scenic views people are accustomed to and to provide for increased capacity on big game winter range to compensate for the rapid loss of private land.

Pagosa Human Resource Unit

The Pagosa Human Resources Unit (HRU) centers on the town of Pagosa Springs, the only incorporated community within the HRU boundaries. The Continental Divide is the dominant feature on the eastern and northern boundaries of the unit. The New Mexico State line forms the southern boundary. The western boundary is formed by the hydrological divide between the Los Pinos and Piedra Rivers. The Pagosa HRU contains portions of Hinsdale and Mineral Counties and virtually all of Archuleta County.

Lifestyle - The predominant lifestyle in the Pagosa HRU is "rural mountain," with many of the residents dependent on the National Forest for their livelihood. Ranching, logging and tourism, including outfitter-guide operations, are occupations dependent on the Forest.

Attitudes, Beliefs and Values - Public awareness of the recreational environment of the National Forest is increasing with immigration to the area. There is a changing public attitude toward protecting and preserving rather than developing and using Forest resources such as timber, forage and minerals. In the future, direct conflicts can be anticipated between those who hold "preservation" attitudes and those who believe resources should be developed to meet local income and employment needs.

Social Organization - While most of the community services found in other areas are available in Pagosa HRU, rapidly increasing populations are placing strains on school systems, medical facilities, street and road maintenance and law enforcement.

Population and Land Use - Until a few years ago, Hispanics were in a majority in Archuleta County. Recent population growth has changed this mix, but the Hispanic influence is still extremely strong. Population growth has created a significant shift in land uses, the most significant being the conversion of ranchland into housing subdivisions and resorts.

PAST AND CURRENT MANAGEMENT AND SUPPLY POTENTIAL

The capacity of the San Juan National Forest to provide outputs, goods and services is directly related to management of the resource elements and support activities described in the following section. These resource elements are the same ones used in developing the National Assessment and Renewable Resources Program (RPA).

Table II-1 compares the estimated resource production and use levels that would be provided by implementation of the Forest Plan with current management, Regional objectives, demand trends, and supply potentials where appropriate. The following defines the levels portrayed in the table.

Current Management

The level of outputs and uses that could be attained under the guidance of goals, objectives and land use allocations established in existing plans.

Regional Objectives

That portion of resource uses and outputs from the 1980 Resource Planning Act (RPA) Program that have been assigned to the San Juan National Forest by the Regional Guide.

Demand Trends

Level of outputs, uses, and services expected to be needed or desired in the future.

Supply Potential - Maximum Resource Outputs

The estimated maximum possible level of a given output that could be supplied while maintaining long-term land productivity.

Forest Plan Objectives

The estimated levels of resource uses and outputs to be provided over time by implementation of the Forest Plan.

RESOURCE ELEMENTS

The following discussion is intended to portray the management situation as it relates to the various resource elements. Although resource elements are discussed individually, it must be remembered that management of the Forest occurs on an integrated resource basis. Management

TABLE II-1

Current Outputs, Projected Demand, Supply Potentials (Average Annual Units)

Activity	Category	Unit of Measure	Present Level 1980	Time Periods					
				1981-1985	1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
<u>RECREATION</u>									
Developed (total, including down- hill skiing)	Current Management	Thousand Visitor Days <u>1</u> /		659	950	1,231	1,511	1,762	1,884
	Regional Objectives			780	900	1,200	1,500	1,700	1,700
	Demand Trends		612	624	730	1,026	1,250	1,447	1,549
	Supply Potential			Not Calculated					
	Maximum Resource Outputs			Not Calculated					
	Forest Plan Objectives			659	1,105	1,521	1,925	2,387	2,639
Downhill Skiing	Current Management	Thousand Visitor Days		115	165	235	300	365	385
	Regional Objectives			No Targets Assigned					
	Demand Trends		138	188	222	495	750	1,060	1,250
	Supply Potential			No Targets Assigned					
	Maximum Resource Outputs			4,000	4,000	4,000	4,000	4,000	4,000
	Forest Plan Objectives			115	295	495	675	940	1,090
Dispersed (includes off-road motorized)	Current Management	Thousand Visitor Days		1,170	1,440	1,800	2,190	2,530	2,810
	Regional Objectives			980	1,100	1,400	1,800	1,900	1,900
	Demand Trends		873	1,178	1,432	1,800	2,190	2,530	2,810
	Supply Potential			No Targets Assigned					
	Maximum Resource Outputs			24,010	24,010	24,010	24,010	24,010	24,010
	Forest Plan Objectives			1,170	1,430	1,790	2,220	2,590	2,780
Off-Road Motorized	Current Management	Thousand Visitor Days		80	100	130	160	180	200
	Regional Objectives			No Targets Assigned					
	Demand Trends		63	80	140	210	260	390	490
	Supply Potential			No Targets Assigned					
	Maximum Resource Outputs			Not Calculated					
	Forest Plan Objectives			80	100	130	160	190	200
<u>WILDERNESS</u>									
Wilderness Use	Current Management (Capacity)	Thousand Visitor Days		214	314	420	539	639	725
	Regional Objectives			No Targets Assigned					
	Demand Trends		139.0	240	352	456	585	693	787
	Supply Potential			No Targets Assigned					
	Maximum Resource Outputs			240	352	470	640	716	812
	Forest Plan Objectives			232	341	456	585	693	787

TABLE II-1 (Continued)

Current Outputs, Projected Demand, Supply Potentials (Average Annual Units)

Activity	Category	Unit of Measure	Present Level 1980	Time Periods					
				1981- 1985	1986- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Wilderness Management	Current Management	Thousand Acres		355.0	355.0	355.0	355.0	355.0	355.0
	Regional Objectives			No Targets Assigned					
	Demand Trends		355.0	Not Available					
	Supply Potential								
	Maximum Resource Outputs			445.2	445.2	445.2	445.2	445.2	445.2
	Forest Plan Objectives			412.4	412.4	412.4	412.4	412.4	412.4
<u>WILDLIFE</u>									
Elk Winter Range Carrying Capacity	Current Management	Thousand Animals		13.3	13.3	13.4	13.6	13.7	13.9
	Regional Objectives			No Targets Assigned					
	Demand Trends		12.8	Limited by Supply					
	Supply Potential								
	Maximum Resource Outputs			Not Calculated					
	Forest Plan Objectives			13.7	13.7	14.3	15.1	15.2	16.6
Deer Winter Range Carrying Capacity	Current Management	Thousand Animals		18.0	18.0	18.3	18.9	19.2	19.8
	Regional Objectives			No Targets Assigned					
	Demand Trends		16.4	Limited by Supply					
	Supply Potential								
	Maximum Resource Outputs			Not Calculated					
	Forest Plan Objectives			19.4	19.4	21.2	23.8	26.1	28.7
<u>RANGE</u>									
Grazing Use	Current Management	Thousand Animal Unit Months <u>2/</u>		162.8	168.6	187.1	187.2	192.5	195.5
	Regional Objectives			164.8	169.0	169.0	169.0	170.0	170.0
	Demand Trends		170.2	177.0	183.0	218.0	225.0	228.0	232.0
	Supply Potential								
	Maximum Resource Outputs			303.2	314.0	385.3	408.3	416.4	447.9
	Forest Plan Objectives			162.6	175.4	187.5	192.5	197.2	200.6

TABLE II-1 (Continued)

Current Outputs, Projected Demand, Supply Potentials (Average Annual Units)

Activity	Category	Unit of Measure	Present Level 1980	Time Periods					
				1981-1985	1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
<u>TIMBER</u>									
Sale Offerings	Current Management	Million Board Feet		34.2	35.7	38.8	42.0	44.8	72.4
	Regional Objectives			34.2	31.0	34.0	35.0	35.0	40.0
	Demand Trends		23.2	34.6	36.0	38.9	41.8	44.7	47.7
	Supply Potential								
	Maximum Resource Outputs		220.5	220.5	165.4	125.4	156.8	117.6	
	Forest Plan Objectives		34.2	41.3	42.0	44.0	46.0	48.0	
<u>WATER</u>									
Water Yield	Current Management	Million Acre-Feet		2.499	2.501	2.508	2.520	2.520	2.519
	Regional Objectives			2.405	2.414	2.432	2.451	2.469	2.488
	Demand Trends		2.500	2.520	2.640	2.900	3.190	3.500	3.850
	Supply Potential								
	Maximum Resource Outputs		2.446	2.552	2.522	2.539	2.565	2.582	
	Forest Plan Objectives		2.501	2.501	2.513	2.525	2.526	2.527	
Water Meeting Water Quality Goals	Current Management	Million Acre-Feet		1.85	1.85	1.85	1.89	1.89	1.89
	Regional Objectives			1.90	2.05	2.15	2.20	2.20	2.20
	Demand Trends		1.85	2.50	2.50	2.50	2.50	2.50	2.50
	Supply Potential								
	Maximum Resource Outputs		Not Estimated						
	Forest Plan Objectives		1.85	1.85	1.85	1.89	1.89	1.89	

1/ Recreation Visitor Day = 12 hours of recreation for one person or one hour of recreation for 12 persons or any combination thereof.

2/ Animal Unit Month = the amount of forage consumed by one mature cow or its equivalent in a one-month period.

activities affect a variety of resources, and decisions are made only after considering the entire set of ramifications involved. Similarly, single management activities are actually designed to serve a variety of resource objectives. Timber harvests, for example, are designed not only to remove timber in the most cost-efficient manner, but also to increase water yield in appropriate areas. Water developments are designed to serve the needs of certain wildlife species as well as domestic livestock. Roads are located to efficiently transport logs from the timber sale area to the mill, but these same roads are also designed to provide access for hunting, firewood gathering, and recreation.

Other inter-relationships are more separated chronologically. For example, timber harvesting, when it improves the balance of successional stages of vegetation, can improve wildlife habitat diversity. Improved diversity leads to a gradual increase in populations of certain animal species, which in turn increases recreation opportunities for viewing, photographing, and hunting these animals. This series of events may take several years to come to fruition, yet it may be entirely the result of a single management activity.

Therefore, resources that are discussed individually below are really part of a very complex system with numerous interactions. They are described individually only to emphasize important aspects of the current situation in some type of organized framework. These elements must be conceptually combined in order to understand the overall current situation on the Forest as well as how the Forest Plan relates to it.

Recreation

Recreation is one of the major uses of the San Juan National Forest. An estimated 1.18 million recreation visits occurred in 1980, which provided approximately 1.62 million recreation visitor days (RVD's). Use is distributed among the following activities.

Dispersed Recreation - Specific dispersed recreational opportunities available on the San Juan National Forest include hiking, backpacking, picnicking, camping, gathering forest products, trail-biking, driving for pleasure, fishing, hunting, boating, rafting, mountain climbing, swimming, horseback riding, general leisure and sightseeing, cross-country skiing, snowmobiling, snowshoeing, ice fishing, snow play, sledding and tobogganing.

The San Juan National Forest has approximately 1,867,000 acres that are available for dispersed recreation activities. Non-wilderness dispersed recreation is estimated at 873,000 recreation visitor days per year and is presently the largest and fastest growing form of recreation on the San Juan National Forest.

Developed Recreation - The 61 "public sector" sites on the San Juan National Forest have a total use of about 391,000 RVD's per year with a combined total theoretical capacity of 2,261,000 RVD's . These sites include 37 campgrounds, 7 picnic areas, 4 boating sites, 2 group campgrounds, 6 developed trailheads, and 5 observation or interpretive sites, including the Chimney Rock Archaeological Area. Season of use runs from May 15 through November 15. Fees are charged on campground and group picnic sites meeting Land and Water Conservation Fund Act criteria. Presently, 31 of the 61 sites are designated as fee areas. In 1980, returns to the U. S. Treasury from these fees were \$40,700.

Nearly all "public sector" sites are currently maintained to complement the natural environment and provide adequate visitor facilities, such as toilets, tables, fire rings, and roads. The largest suppliers of developed recreation outside the San Juan National Forest are private campgrounds and Mesa Verde National Park with an estimated total theoretical capacity of 4,580,000 RVD's. Developed recreation use on non-National Forest sites is expected to increase from 35 percent of present theoretical capacity to 80 percent by the year 2030.

Demand for developed recreation is expected to increase as local population increases. As travel expenses increase, use of developed sites by local residents will also increase.

Ski Areas - There are two operating ski areas on the San Juan National Forest, Stoner and Purgatory. Current annual use at these areas is 138,000 RVD's. Stoner is a small weekend-type ski area presently operated by a nonprofit club. It has two T-Bar lifts which are partially located on the Forest (27 acres) and a small rope tow on private land, with a total capacity of 380 skiers at one time. During the 1979-1980 season, Stoner had 4,544 skier visits. Annual use at Stoner has not increased significantly for several years.

Purgatory, the only destination ski resort in the San Juan National Forest, is much larger than Stoner. During the 1979-1980 season there were 271,500 skier visits. Skier use averaged 51 percent of capacity on weekdays and 76 percent of capacity on weekends. The capacity of 3,200 skiers per day was exceeded 13 times during the season. Approximately 60 to 70 percent of the skiers are from out-of-state, mostly from New Mexico, Texas and Arizona. The market for out-of-state skiers is favorable, as Purgatory is the only major ski area in Colorado that can be driven to from the southwestern states without crossing a major mountain pass. Commercial jet aircraft capability at the La Plata County Airport further enhances the attractiveness of Purgatory Ski Area.

Purgatory currently has five double-chair and two triple-chair lifts serving approximately 500 acres of trails. Proposed expansion would add two more chairlifts and increase the trail area served to about 700 acres. In 1979, Purgatory installed an "alpine slide" which involves riding a sled-like vehicle down a fiberglass chute. This attraction has increased summer use of the area.

Demand for downhill skiing generally exceeds supply. Consistent demand, in spite of energy shortages and higher lift ticket prices, suggests that substantial increases in capacity would be paralleled by increases in use. Use by 1995 will more than double if current trends continue.

There are 14 inventoried potential ski area sites on the Forest. There is an identified interest by the private sector in at least three of these sites: East Fork, Windy Pass, and Grayrock-Cascade.

Cultural Resources - Many Anasazi ruins are scattered throughout the Forest, representing various periods of Anasazi history. Much evidence of early development in the San Juan Mountains, such as old mines, pack trails, toll roads, and narrow gauge railroad beds, can also be found.

Prior to any ground-disturbing management activities, project sites are surveyed for archaeological and historic significance. Protective measures are taken when a cultural resource site is found. Over 250,000 acres, or approximately 13 percent of the San Juan National Forest, has been systematically inventoried for archaeological resources.

Currently, there are three cultural resources on the San Juan National Forest listed in the National Register of Historic Places: the Chimney Rock Archaeological Area; the Spring Creek Archaeological District (listed in the National Register as the "Zabel Canyon Indian Ruins"); and the Durango and Silverton Narrow Gauge Railroad which is also a National Historic Landmark. Chimney Rock is presently managed to emphasize wildlife protection, recreation, and archaeology research. It is also being proposed for designation as a Chaco Protection Site under Sections 502 and 503 of Title V of Public Law 96-550 which will recognize its important relationship with the prehistoric culture of Chaco Canyon National Park in New Mexico.

Visual Resources - The San Juan National Forest is characterized by outstanding scenery. Interest in management of the visual resource is increasing.

Approximately eight percent of the Forest has been altered by man to the degree that it visually dominates and contrasts with the natural appearing landscape. Examples are developments such as roads, utilities, mineral activity, timber clearcutting, and developed recreation sites. Contrasts which increase vegetation diversity and textural differences generally enhance the visual quality of an area.

Demands for, and concerns about scenic quality of San Juan National Forest lands viewed from recreation sites and major travelways will become increasingly important. Visual resource management techniques will continue to be applied to all projects in the future, with specific emphasis on those areas identified by the Forest Plan as high in scenic quality or recreation use. A major emphasis is on maintaining a healthy and vigorous Forest through vegetation treatment.

Wilderness

The San Juan National Forest presently contains 355,056 acres of designated wilderness. This is about 20 percent of the Forest, which is distributed among the Weminuche, the Lizard Head, and the South San Juan Wildernesses. The South San Juan Wilderness Expansion, Piedra and the West Needle Wilderness Study Areas comprise an additional 90,100 acres to be studied for possible inclusion into the National Wilderness Preservation System.

Existing Wilderness - The Weminuche Wilderness now contains 459,172 acres (294,457 acres on the San Juan National Forest). It was originally designated in 1975 although it had been managed since 1932 as the San Juan Primitive Area. The Weminuche stretches along the Continental Divide from Stony Pass on the north to near Wolf Creek Pass on the south. Approximately 497 miles of light to heavy use trails permit access to the area. In the past decade, recreation use has risen to almost 200,000 RVD's in 1980 with areas such as Chicago Basin, Johnson Creek, and Flint, Goose, Trout, Ute, and Emerald Lakes receiving heavy recreation use. Direct controls such as camping restrictions have been necessary on some areas around Emerald Lake. The Weminuche is very popular for commercial outfitter-guides who generate over 10 percent of the annual use in the form of hunting, fishing, photography and sight-seeing trips. There is low interest both in mineral exploration and oil and gas leasing in the area.

The 41,158-acre Lizard Head Wilderness (20,816 acres on the San Juan National Forest) was created out of parts of the Wilson Mountains Primitive Area and adjacent areas by an Act of Congress in December 1980 (PL-96-560). Impressive rock outcrops and high mountain terrain with peaks over 14,000 feet characterize this area. Cirque lakes and swift flowing streams are also present and some contain cutthroat, rainbow, and brook trout. Extensive vistas and large areas of alpine and spruce-fir vegetation are present. Approximately 19 miles of trails provide access for light to moderate recreation use. There is also low interest in mineral exploration and high interest in oil and gas leasing in the area.

The South San Juan Wilderness, designated in 1980 (PL-96-560), crosses the Continental Divide in the San Juan Mountains. The 127,685-acre area (39,783 acres on the San Juan) contains bottomlands, canyons, glaciated uplands, uneven mountains and high hills. Some of the area is above timberline. The Conejos, San Juan and Blanco Rivers originate in the area. Vegetation includes a variety of grasses, shrubs, spruce, fir, aspen and various alpine plants. One hundred sixty-four miles of trails provide access for hunting, fishing, sightseeing, and grazing. The area is currently receiving light recreation use which is expected to rise as a result of official wilderness designation. There is low interest in both mineral exploration and oil and gas leasing in the area.

Future wilderness use can be expected to rise during the next decade at nearly the historic rate of increase. Changes in this rate beyond the next few years will depend on factors such as travel costs and leisure time.

Under existing legislation mineral exploration and development can continue until December 31, 1983, at which time the lands will be withdrawn from further mineral entry and leasing. Grazing use, on the other hand, is expected to remain steady or increase slightly. On some vegetation types, grazing capacity will decline due to natural succession of trees into existing forage producing areas.

Wilderness Study Areas - In 1977 the Forest Service began a Nation-wide Roadless Area Review and Evaluation (RARE II) to identify roadless and undeveloped areas within the National Forest System which were suitable candidates for inclusion in the National Wilderness Preservation System. Thirty-eight areas were inventoried on the San Juan National Forest; over 300 areas were inventoried in Colorado.

The Colorado Wilderness Act of 1980 (P.L. 96-560) was a direct result of RARE II. In the Act, three areas on the San Juan National Forest, West Needle, Piedra, and South San Juan Wilderness Expansion (Montezuma Peak - V Rock Trail) were established as Wilderness Study Areas. This act requires the Secretary of Agriculture to review the study areas and make recommendations as to the suitability or unsuitability of inclusion into the National Wilderness Preservation System by December 31, 1983.

Fish and Wildlife

Wildlife - In 1980, the San Juan National Forest provided 107,600 RVD's of hunting, 91,600 of them for big game. Non-consumptive wildlife use constituted 10,000 RVD's. Wildlife related recreation made up approximately seven percent of the total recreation use of the San Juan National Forest.

The variety of topography and climate that occurs within the San Juan National Forest provides habitats for many species of mammals, birds, reptiles, amphibians, and fish. A complete species list and summary of habitat relationships is included in the wildlife data input to the San Juan National Forest Land and Resource Plan on file at the Forest Supervisor's Office, Durango.

Estimated populations of the primary species of game animals on the San Juan National Forest are indicated in the following table. No specific data on population numbers of small game and non-game species is available.

There are approximately 650,000 acres of big game winter range on the San Juan National Forest, of which 95,000 acres are classified as key winter range. Winter range is especially important since winter ranges on adjacent private lands are being lost or impacted as a result of developments and other conflicting uses.

Populations of Game Species

Species	Estimated Population 1980
Bighorn sheep	220
Black bear	1,200
Elk	9,700
Mountain lion	70
Mule deer	16,250
Turkey	330
Mountain goat	80

Consumptive and non-consumptive uses of wildlife resources are expected to increase and to meet or exceed supply. Small game hunting will probably become more popular requiring additional maintenance and improvement of small game habitats. The Forest Service will be called upon to improve the quality of big game winter range on the San Juan National Forest as more adjacent winter range is lost to development. Nonconsumptive uses of wildlife such as viewing, bird watching and photographing will increase as consumptive uses become more restricted.

Fish - In 1980, cold-water fishing on the San Juan National Forest provided 136,700 RVD's. Total fish-related recreation made up about nine percent of the total recreation use of the Forest.

There are presently 16 species of fish on the Forest, of which seven are classified as game fish. These are brook, rainbow, brown and cutthroat trout, kokanee salmon, and northern pike.

There are approximately 1,215 miles of perennial fishing streams, 94 natural lakes and 10 reservoirs on the San Juan National Forest. A majority of stream habitat is of poor quality because of steep gradients and high yearly fluctuation of flow. Current inventories indicate approximately 236 miles of stream where improvement of habitat could be accomplished on an cost-effective basis. The majority of the natural lakes on the San Juan National Forest occur in wildernesses. There are only a few opportunities to improve cold-water fish habitat in lakes or ponds.

In the future, the Forest Service will probably be called upon to provide fish habitat in low elevation, highly productive ponds and lakes. Fishing pressure will likely increase beyond supply, especially on waters outside wildernesses. As fishing pressure continues to increase, specific fish habitats in wilderness may become over-utilized because of their limited production potential.

Threatened and Endangered Species - The Endangered Species Act of 1973 requires that all Federal agencies protect and manage threatened and endangered species and their habitats. The San Juan National Forest has the following Federal or State designated threatened or endangered wildlife species:

Common Name	Latin Name	Designation
American peregrine falcon	<u>Falco peregrinus</u> <u>anatum</u>	Endangered-Federal
Bald eagle	<u>Haliaeetus leucocephalus</u> <u>alascanus</u>	Endangered-Federal
Colorado River cut-throat trout*	<u>Salmo clarki pleuritius</u>	Threatened-State Candidate-Federal
Colorado Squawfish*	<u>Ptychocheilus lucius</u>	Endangered-Federal
Grizzly bear*	<u>Ursus arctos</u>	Endangered-Federal
Humpback chub*	<u>Gila cypha</u>	Endangered-Federal
Razorback Sucker*	<u>Xyrauchens texanus</u>	Candidate-Federal
River otter	<u>Lutra canadensis</u>	Endangered-State
Wolverine*	<u>Gulo gulo</u>	Endangered-State

*Uncertain existence on San Juan National Forest

At present, there are 21 prime inventoried sites on the San Juan National Forest that have been recommended as essential habitat for peregrine falcon. One of these sites is an active eyrie and another is being used as a hack site for reintroduction purposes. Six areas of winter roosting sites for bald eagles have been identified. These areas are primarily on private lands adjacent to or intermingled with the San Juan National Forest.

A cooperative research study with the Colorado Division of Wildlife has been completed on nearly 80,000 acres to determine if grizzly bear exist on the San Juan National Forest and to classify possible habitat. No sign of current grizzly bear presence was found and the potential habitat that was identified was not considered widespread enough to support a reproducing population. Habitat for the river otter has been identified, and a multi-year transplanting program is in progress.

There are no known threatened or endangered plant species on the San Juan National Forest although Mesa Verde cactus and Knowlton's hedgehog cactus have been found about 10 miles from the Forest boundary.

Certain trends can be expected in the future. For example, a sizable portion of the general public will continue to demand that threatened and endangered species and their habitats will be maintained or improved. If the determination is made that grizzly bear do exist on the San Juan National Forest, the Forest Service may be required to alter its management of grizzly bear habitat. Demands for commodity products will continue to be in conflict with certain threatened and endangered species habitat requirements.

Wildlife Habitat Diversity - Vegetation diversity and structural stages are a primary influence on wildlife habitat. The majority of the San Juan National Forest has good to excellent inherent diversity of its vegetation; however, most forested areas are mature to overmature and in need of a better balance of age-classes. Vegetation diversity problems are past clearcuts in spruce-fir, non-regenerated ponderosa pine areas, and some oakbrush areas.

Aspen is a key habitat for many wildlife species. The maintenance, expansion, and renewal of aspen stands is important for habitat diversity. Generally, the aspen on the San Juan National Forest is overmature and in need of renewal as a result of limited treatment.

Alpine and rockland non-forested habitats are in good condition. Only a few activities, primarily dispersed recreation, affect their wildlife habitat values. The mountain shrub and grassland habitats are in fair to good condition, with a few areas of livestock-big game competition.

Riparian habitat is especially important for wildlife and fish. There are problems in some areas with excessive domestic livestock grazing and off-road vehicle use.

The demand for increased habitat diversity will continue in the future. As pressure on the Forest grows from loss of private habitat lands and from increased hunting and fishing, vegetation treatment will be called upon to provide more habitat opportunities for game species. More fisheries and fish habitat improvement projects will also be needed.

Range

Of the 1,867,782 acres of San Juan National Forest, about 866,000 acres are classified as capable and suitable livestock grazing rangeland. There are about 145,500 acres in unsatisfactory range condition. It is the goal of range management to maintain all rangeland in satisfactory range condition.

Grazing of livestock on the San Juan National Forest is a major use. Much of the local economy is dependent on ranching and stock-raising. The total number of livestock grazing on the Forest, about 31,000 cattle and 51,000 sheep in 1980, represents one-third of the total cattle and sheep in the five-county area. Also, there were about 3,400 horses, mostly being used for recreation activities, grazing on the Forest. The majority of the cattle are permitted on the Forest from mid-May to mid-October. The majority of the sheep are permitted from early July to mid-September.

There are 219 livestock grazing allotments on the San Juan National Forest broken down as follows: 145 cattle and horse allotments, and 74 sheep and goat allotments. Thirty-two of the allotments are vacant; 28 are available to be stocked and grazed by livestock; and four are currently not available for restocking because of restoration projects.

Forest-wide stocking is within estimated carrying capacity; however, 22 cattle and horse allotments and six sheep and goat allotments are considered to be either overstocked or have management problems. The overall trend is that range conditions are improving across the Forest. The number of cattle grazing on the Forest has remained fairly steady over the past few years; however, because of variations in the sheep market, numbers of sheep have fluctuated greatly.

The demand for permits for cattle grazing is expected to remain high and will exceed available supply. Demand for sheep permits is expected to continue fluctuating over time but will rise to exceed supply. The dependency on Forest lands for grazing will probably increase as more private land is converted from rangeland to other uses. Conflicts will increase between grazing and other resource uses.

Timber

Timber management on the San Juan National Forest has not been a cost-effective program in recent years considering only the direct costs and revenue of selling trees. However, when all the other associated resource benefits are considered, a timber management program becomes a realistic and cost-effective management tool. The other resource objectives provide the impetus for a coordinated timber management program and in so doing improve the effectiveness of their own programs. Without a timber management program, many other resource management programs would cost a great deal more or could not be accomplished at all. In a sense, wood products are both an objective and a by-product of multiple use management.

During the period from 1915 to 1980, over 1,800 million board feet (MMBF) of timber have been harvested from the Forest. From 1960 to 1980, average annual harvest has been 53 MMBF per year, ranging from 98 MMBF per year in 1969 to 22 MMBF in 1980.

Average annual harvest of timber has been declining as a result of depressed market conditions for lumber and other wood products. The Montezuma Plywood Company in Dolores, with a capacity of 30 MMBF annually, closed in 1976. San Juan Lumber Company's operation in Pagosa Springs, which used 25 MMBF annually, has not operated since 1978. San Juan's operation in Durango closed in 1981. It processed 10 MMBF of timber in 1980.

During the period 1973 through 1982, Engelmann spruce, true fir, and Douglas-fir have been the major species harvested on the Forest, accounting for 49 percent of the harvest, followed by ponderosa pine (27 percent) and aspen (12 percent).

The timber resource is presently being regulated on a non-declining yield basis. This means that yield of wood fiber for any decade will not be less than the yield during the previous decade. This also implies that the average annual amount cut cannot exceed the long-term capability of the Forest to regenerate wood fiber on a sustained yield basis. Current average annual cut is below that level; however, larger harvests are needed to maintain a healthy forest and acceptable levels of wildlife habitat, range, visual quality, and water yield. Opportunities exist for diversifying and expanding mill capacity to meet vegetation treatment objectives.

Commercial harvest techniques have generally been limited to tractor logging, primarily because the low volume cut per entry on most sales has rendered high cost logging systems economically infeasible. Tractor logging is limited to slopes less than 40 percent.

Timber harvests are designed to achieve multiple use objectives, including water yield, range, wildlife habitat and visual quality improvement, fuel reduction, and insect and disease control. Regeneration systems called for in the 1976 Timber Management Plan include clearcut and shelterwood in the spruce-fir and Douglas-fir types and clearcutting in the ponderosa pine and aspen types. Not all of these regeneration systems are scheduled in the first Plan period; however, they are scheduled in later periods when the stands are to be regenerated.

From 1962 to 1980, 40,568 acres were planted, with some acres having been replanted. As a result of poor regeneration success, ponderosa pine sites which are presently non-stocked or on greater than 30 percent slopes are considered unsuitable for timber production. For Engelmann spruce, harvest methods were changed from clearcutting to shelterwood to enhance natural regeneration, except that small clearcuts using aerial logging systems are permitted.

Demand for timber resources is expected to increase at a moderate rate, except for fuelwood, for which demand will be high. There will be strong pressure from outside the local area for the Forest to contribute more to the national wood supply. It is anticipated that both market and non-market demands will increase and that in some cases demands will conflict. In most instances, timber harvests will enhance other resource values. Reforestation programs are expected to show greatly improved success rates.

Water

Watersheds on the San Juan National Forest generate approximately 15 percent of the flow of the Colorado River as measured at Lee's Ferry, Arizona, although they occupy only three percent of the drainage area. Nearly 80 percent of the flow of the San Juan River at Bluff, Utah originates on the Forest. Total average annual yield is 2.5 million acre-feet.

The Forest's riparian and aquatic zones were identified in the stream type classification process and are the flood-prone areas of the Forest

covered by Executive Order 11988, Flood Plain Management. New development or other concentration of activities is limited to areas where impacts on floodplain/wetland resource values can be mitigated.

The San Juan National Forest provides water for 18 irrigation reservoirs within or adjacent to its boundaries. Many of the streams of the Forest are impacted by diversions and are drying up.

Vegetation treatment and snow management structures are often feasible means of increasing stream flow. Cloud seeding with silver iodide crystals in the San Juan Mountains as a method of augmenting snowpacks and water yield is again being studied by the Bureau of Reclamation. A permit has been issued to the Bureau of Reclamation for electronic monitoring of limited cloudseeding being performed by private consultants in cooperation with various local water and snow users. Changes in stream flow timing can be obtained through reservoir construction and control of peak flows through vegetation treatment. As more funds become available, additional snow fencing can be utilized to provide increased stream flow from the high elevation watersheds. Existing yield increases, about one percent of current total water yield, have resulted from timber management activities and other vegetation reducing activities, such as roads, powerlines, pipelines, and fires.

Demand for water presently exceeds supply, a trend that is expected to intensify in the future. Water yields from the San Juan National Forest can be increased by approximately 87,000 additional acre-feet per year above pristine baseline without degrading water quality. The primary method for increasing water yield on the Forest is through vegetation treatment using both commercial and non-commercial methods.

Minerals and Geology

The geologic forces responsible for the topographic conditions on the San Juan National Forest also led to a high degree of mineralization. As a result, mineral resources are prevalent.

Forest Service policy toward mineral activities on National Forest System lands is guided by statutes and expressed in regulations; in statements of the President, the Secretary of Agriculture and the Chief of the Forest Service; and in the Forest Service Manual.

The search for and production of minerals and energy resources are statutorily authorized uses of the National Forest System, except for those lands formally withdrawn from mineral activities by Act of Congress or by Executive authority. Mineral activities on National Forest System lands are encouraged in accordance with the National Mining and Mineral Policy Act, the Acts governing mineral disposals from National Forest System lands and the various applicable Federal and State statutes governing protection of the environment, including air and water quality.

Statutory and regulatory direction separate mineral resources in lands owned by the United States into three categories: locatable (generally

precious and base metals for which mining claims may be staked), leasable (generally oil, gas, geothermal, coal, sodium and potassium for which a lease may be issued), and salable (sand, gravel, construction rock which the Forest Service may sell).

Locatable Minerals - Placer and lode gold, along with silver, copper, lead and zinc have been recovered from the Forest since the 1870's. More recently, uranium has been extracted and exploration for molybdenum has been carried out.

Other locatable minerals having the potential of being economically recoverable include tungsten, thorium, and vanadium. Increasing use of coal to generate electrical power in the Four Corners Region may lead to the development of limestone as an emission-scrubbing agent. Minor amounts of iron, manganese, nickel, cadmium, mercury and sulfur have also been produced on the Forest.

Exploration, development, and production of locatable minerals is likely to increase in the 1980's. The outlook for increased exploration and development of precious and base-metal ores is mixed. Increasing political pressure to develop domestic resources may spur development of economically marginal operations.

The long-range outlook for exploration and development of molybdenum and vanadium resources is good, but the outlook for tungsten and uranium development is less favorable.

Leasable Minerals - Since 1920, approximately 85 exploratory oil and gas wells have been drilled on the Forest, most of which were either dry or had amounts too low to be economically extracted. Several proven reserve fields lie along the southern and southwestern boundaries of the Forest, and five producible natural gas wells on the Pine and Dolores Districts were discovered in 1981-82. Production is expected following the construction of gathering pipelines. Virtually the entire western third and southeastern third of the Forest are covered with existing oil and gas leases or lease applications.

The United States Geological Survey has inventoried four areas as being prospectively valuable for geothermal resources:

- West Fork area -- 26,300 acres
- Pagosa Springs area -- 26,300 acres
- Dunton-Rico area -- 132,109 acres
- Trimble-Pinkerton area -- 130,313 acres

To date no geothermal leases have been issued. Interest in developing this resource is limited by the generally low temperature gradient of geothermal waters.

Oil companies are involved in a joint CO₂ project which includes the Doe Canyon area on the western edge of the Forest. The corridor for a 480-mile transmission pipeline to Texas has been approved, and construction is almost completed. Interest in CO₂ has been expressed by other companies and several new exploratory wells are planned to test for CO₂ east of the present project field.

Two areas of the Durango Known Recoverable Coal Resource Area (KRCRA) lie on the San Juan National Forest. A detailed assessment is contained in Appendix H of the EIS. One emergency coal lease application near Chimney Rock is currently being considered, and a San Juan River Regional Coal Lease sale will be assessed in 1986.

Exploration and development of leasables, especially fossil fuels, is expected to increase sharply. The southern portions of the Pine and Pagosa Districts and the western part of the Dolores District will probably bear the major impacts of this activity. Development of geothermal resources on the San Juan National Forest will be limited to small-scale uses such as space heating and spas, resulting in minimal impacts within geothermal resource areas. Exploration for oil and gas will increase, and technological advances in geophysical interpretation and data-gathering methods will result in more activity and heavier impacts in favorable areas. Coal lease sales and attendant development are anticipated on the southern portions of the Pine and Pagosa Districts.

Salable Minerals - Seventy-six aggregate sources of salable minerals have been inventoried, most of which have not been developed. Those developments that have taken place are short-term and site specific, mostly for Forest, County, and State road projects. A few non-competitive sales of lichen-covered ("moss") rock have been made. The outlook for salable minerals on the Forest is for an increase in applications for sand, gravel and building stone corresponding to increases in the number of construction, mining, and housing projects in the 1980's.

Human and Community Development

The Forest has been actively engaged in a wide variety of manpower and youth training programs. A summary of the major programs follows:

Comprehensive Employment Training Act (CETA) Program - This program provides employment to youths between the ages of 15 and 18. The average annual participation has been 8 CETA enrollees, nearly all of whom are women or minorities.

College Work-Study Program - This program is designed to provide work experience and employment to low income college students. At most 15 students were working under this program. Many of these students are women and minorities.

Youth Conservation Corps (YCC) - The Forest had 24 young people between 15 and 18 years old employed in the YCC in 1983; there was no program in

1981 and 1982. This has traditionally been one of the Forest's most effective programs internally and externally, but funding has been somewhat variable over the past few years.

Volunteers in National Forest Program - This program, authorized in 1972, has been used extensively to accomplish campground host work and archaeological surveys. In 1980, there were 36 volunteers working for the Forest.

Senior Community Service Employment Program (SCSEP) - Currently, there are 18 enrollees, 55 years of age or older who meet low income requirements specified by the Department of Labor. Many of these individuals are women and minorities.

The outlook for manpower and youth training programs on the San Juan National Forest is not encouraging. Many of the programs are Federally funded, with monies coming from other government agencies. The current economic and administrative climate in the country is such that monies have been, and will likely continue to be, significantly reduced.

SUPPORT ELEMENTS

Lands

Special Land Uses - The San Juan National Forest is available for occupancy when special uses further the public interest and are compatible with Forest Service goals and objectives. Occupancy is authorized through special land use documents. Factors limiting authorization are availability and suitability of land for the proposed uses, compatibility with other National Forest management programs, and public benefits and interests served.

Special land use applications are increasing. Eighty-eight non-recreational documents were issued prior to 1960; 183 were issued from 1960 to 1969; and 205 were issued from 1970 to 1980. There are also 133 recreation-related special use permits operational at present.

Special land uses with significant impacts on the Forest include corridors for oil and gas transmission pipelines (29.7 miles), electric power transmission and distribution lines (165.1 miles), water transmission lines and ditches (104.3 miles), and telephone lines (117 miles).

Demand for special uses will increase substantially and issuance of special use occupancy documents will become more difficult due to increasing conflicts with other Forest management activities.

Land Ownership - Land exchanges and purchases have been moderate. Land and Water Conservation Funds (L&WCF) have been used to purchase a number of private lands for outdoor recreation purposes, but this program has been the only source of funding for land purchase.

Occupancy trespass involves the identification, investigation, and resolution of non-mineral related unauthorized occupancy and use of the San Juan National Forest. There are many suspected unauthorized occupancies where adjacent land owners have constructed improvements on National Forest property. Where property lines are not well identified, the Forest Service has increased efforts to accurately survey boundaries.

There are an increasing number of subdivision developments adjacent to National Forest System lands, with associated conflicts over responsibility for range fences along property boundaries, access to the Forest, and loss of key winter habitat for wildlife. Owners of adjacent properties often desire land exchanges with the Forest Service to reduce subdivision costs, resolve access difficulties, and reap investment benefits. Exchange activity has been low due to uncertain funding and the small number of proposed exchanges which would benefit the public.

Land ownership adjustments are coordinated with the plans and programs of other Federal Agencies, and state and local governments. The San Juan National Forest and the Bureau of Land Management (BLM) have proposed a major boundary adjustment which is now awaiting Congressional action. This adjustment was initiated in 1975 and encompasses 31,607 acres of National Forest land and 25,559 acres of BLM land. There are three Wilderness Study Areas involved in the boundary adjustment. If these areas are transferred to the Forest Service, the studies will be continued by the Forest Service and a recommendation on suitability or unsuitability for wilderness will be made to Congress.

Land ownership adjustment proposals from private and other government agencies are expected to increase in the immediate future.

Rights-of-Way - The intermingled public and private lands within the boundaries of the San Juan National Forest have resulted in many public road and trail access problems. Many areas are unavailable for public use because of insufficient access. More access to the Forest is a major public issue because private landowners often enjoy nearly exclusive use of these areas through control of access.

The San Juan National Forest presently acquires about five to six rights-of-way (ROW) annually. The current emphasis is to acquire ROW's which provide access for commodity uses. Private landowners are reluctant to grant ROW's to the Forest Service unless there is a significant benefit to the landowner. When a ROW is in the public interest, and the property owner is unwilling to grant an easement, the right of eminent domain can be used.

The public demand for public ROW access will increase as other Forest uses increase. Resistance to grant public ROW's is likely to also increase.

Withdrawals - Land withdrawals on the San Juan National Forest are composed of Federal Energy Regulatory Commission withdrawals for trans-

mission rights-of-way, Bureau of Reclamation withdrawals, and Congressional withdrawals for certain activities within wilderness areas and proposed Wild and Scenic River corridors. These withdrawals comprise 463,315 acres on the Forest.

A review and assessment of existing withdrawals is required by Section 204 of the Federal Land Management and Policy Act. Present direction to all agencies is to review withdrawals by 1991, and revoke those which create unnecessary encumbrances on the land. A summary of proposed mineral withdrawals and revocations can be found in Appendix E.

The only new withdrawals contemplated are for administrative sites, research natural and archaeological areas, and those involving other major investment areas which require protection.

License and Permits - This section covers licenses and permits issued by another Federal agency for surface use of National Forest System lands. Currently there are two projects on the San Juan National Forest that have either a license or a preliminary permit for a proposed project. These permits, issued by the Federal Energy Regulatory Commission (FERC), are for the :

- Colorado-Ute Electric Association - Tacoma-Ames Project No. 400 (license); and
- Ptarmigan Resources and Energy, Inc. - Lemon Reservoir Project No. 2938 (preliminary permit)

The Tacoma-Ames license was issued March 19, 1936. The project has been active for several years developing hydroelectric power. A major expansion of the facility was made in 1980-1981, and there is currently a request for renewal of the license with the Federal Energy Regulatory Commission.

The Lemon Reservoir project was issued a preliminary permit that will expire in 1982. It is not known at this time if the proponent expects to file an application after 1982.

Except for the recent expansion of the Tacoma-Ames project, there are no other development proposals. However, with the interest in and the associated rising costs of energy development, there could be additional studies, particularly with water impoundment projects. An example of this is the McPhee pumpback storage project near Hoppe Point on the Dolores Ranger District. Although in the preliminary stages, the project appears feasible. If so, it would require a license under the authority of the Federal Energy Regulatory Commission.

Utility and Communication Facilities - Utility and communication facilities on the Forest are authorized by special use permit or easement. They include oil and gas pipelines, powerlines, telephone and telegraph lines, electronic sites, and a railroad easement. The locations of the major corridors within which future major uses will be considered are shown on the Forest Plan map.

The present trend of increasing utility uses is expected to continue through the planning period.

Special Areas - Special areas are designations of portions of the Forest for specific purposes such as research natural areas, wild and scenic rivers, and archaeological areas.

-Research Natural Areas - The San Juan National Forest has one designated research natural area, Narraguinne; and two potential areas, in Williams Creek and Spring Creek.

The Narraguinne Research Natural Area has 1,928 acres and is representative of the mesa country of southwestern Colorado. Located on the Dolores Ranger District, the vegetation consists of ponderosa pine, pinon pine, juniper and oakbrush types. Due to topography, virgin conditions prevail, and livestock is excluded through the use of fences and natural barriers.

Williams Creek Area is a potential research natural area of approximately 420 acres of white-fir forest on the Pagosa District, which appears to be suitable for designation as a research natural area.

The Spring Creek Archaeological District is a potential research natural area for the study of prehistoric, aboriginal ecosystems. It is an area of 3,360 acres which has been included in the National Register of Historic Places.

Future demands for research natural areas should increase. Several areas may be proposed for designation in the Colorado Natural Areas Program during the next 10 years.

-Wild and Scenic Rivers - The 1975 Wild and Scenic Rivers Act designated three rivers on the San Juan National Forest for potential addition to the National Wild and Scenic Rivers System. These are the Dolores River, the Piedra River, and the Los Pinos River.

The Forest has completed Wild and Scenic River Study Reports and Environmental Impact Statements on all three rivers. All three studies, along with the Administration's recommendations, have been submitted to Congress for action. The recommendations are:

-Dolores River - 105 miles should be designated as a component of the National System of Wild and Scenic Rivers.

-Piedra River - 28.4 miles should be designated as a component of the National System of Wild and Scenic Rivers.

-Pine River - 54 miles, all within the Weminuche Wilderness, should be designated as a component of the National System of Wild and Scenic Rivers.

The San Juan National Forest was also directed to make evaluations of the San Juan River and Animas River for possible inclusion in the

National System of Wild and Scenic Rivers. Neither river was determined to be eligible. (See Appendix I of the final EIS - "Determination of Animas and San Juan Rivers for Wild and Scenic Rivers Eligibility.")

The demand to protect and maintain free flowing rivers will increase.

-Chimney Rock Archaeological Area - Chimney Rock Mesa, located off Colorado Highway 151 near Pagosa Springs, lies between the Piedra River and Stollsteimer Creek and features a heavy concentration of Anasazi ruins.

In 1970, 3,160 acres were designated as Chimney Rock Archaeological Area and entered in the National Register of Historic Places. Various management plans have since been proposed for the area, some providing significant development along Highway 151 at the base of the mesa, including a parking lot, visitor information center, and picnic facilities. Consideration has also been given to joint development with the Southern Ute Tribe, which would encompass the nearby Ute-owned Capote Lake area. The Southern Ute Tribe owns land in and around the Chimney Rock area and would like to participate in and benefit from the development of Chimney Rock as a tourist-oriented attraction. Development of the Chimney Rock site was halted due to the discovery of a pair of peregrine falcons, an endangered species, which resides near the ruins.

Today, Chimney Rock Archaeological Area is accessible only by dirt road from Highway 151, which is closed to the general public. During the summer, the Forest Service conducts guided tours of the ruins, which are organized and conducted in cooperation with the Pagosa Springs Chamber of Commerce.

The demand for public access to the Chimney Rock Archaeological Area will increase. The Southern Ute Tribe has expressed a continuing interest in development of the area.

Soils

Soils within the San Juan National Forest vary considerably with landform, geology and the erosional and depositional processes. Soils are forming from parent materials derived from sedimentary, metamorphic and igneous rocks, as well as glacial and alluvial deposits. Landforms include mesas, cuevas, canyons, glaciated mountains, alpine features, and alluvial bottoms and terraces.

The objective of soil management on the Forest is to match management activities to the capability and suitability of the soil in the interest of maintaining long-term productivity. This can be done quite well where the soil has been inventoried and soil characteristics are known, although only about one million acres have been inventoried thus far.

Soil management problems include soil erosion and compaction. Accelerated soil erosion decreases soil productivity, although management activities can be designed to contain soil erosion within tolerance

limits. Soil compaction resulting from heavy equipment and vehicle use on moist, fine textured soils also affects soil productivity. Activities such as skidding and hauling logs and construction must take place during those periods when soils can support heavy loads.

Soil management services are provided on projects judged to have potential for soil resource damage. These include timber sales, roading, mineral operations, and range management. Management services typically include recommendations to reduce soil impacts.

Continuing concern for soil productivity and erosion will require increased management emphasis on maintaining and improving soil productivity.

Facilities

Structures and Administrative Sites - The Forest Service currently owns 5 office buildings, 18 dwellings, 4 lookout towers, 14 work centers, and 30 other miscellaneous buildings, for a total of 71 buildings utilized in managing the San Juan National Forest. Additional office space is acquired through General Services Administration (GSA) leases as needed. The Supervisor's Office and the Animas Ranger District Office are housed in a GSA-leased building in Durango. The Dolores Ranger District Office, although not under a GSA contract, is also leased. Construction is limited to warehouses and special project buildings. Current plans call for a new warehouse in Dolores. Use of government furnished housing by Forest Service employees is increasing.

Most of the office and work facilities on the Forest are over 40 years old. Most facilities are used to capacity and, in some instances, are overcrowded. Many are not fuel-efficient, either in location or design. Most of the buildings need to be retrofitted for energy efficiency.

There are no solid waste disposal sites on the Forest.

There are 65 road bridges or major culverts on the San Juan National Forest, representing a \$4,000,000 capital investment. There are also 34 trail bridges, which cost approximately \$850,000 to construct.

There are over 300 dams on the Forest, but only 13 of these are over 20 feet in height. Only one of these, at Henderson Lake, is owned and maintained by the Forest Service. There are currently no plans for constructing additional dams over 20 feet in height.

There will be an increasing need to reconstruct existing buildings and recreation sites due to their age and condition. Further bridge work will involve rebuilding and upgrading existing structures. There are proposals for constructing additional dams on the Forest and, as demands for water increase, additional storage capacity will be proposed. The demand for solid waste sites on the Forest will also increase as population and land values increase.

Roads - The San Juan National Forest has 2,905 miles of Forest development roads, 565 miles of which are arterial and collector roads and the remainder are local. Other Federal, State and County roads also provide access to the Forest. In addition, 1,087 miles of primitive roads have been created by off-road vehicle (ORV) use.

The majority of the roads on the Forest were constructed due to timber sale activity. However, they serve multiple purposes since they are available for the benefit of grazing, hunting, fishing, minerals, driving for pleasure, and other motorized activities.

Much of the road system now requires, or will soon require, reconstruction to provide safe and maintainable standards. Some roads causing erosion problems or which cause undesirable impacts due to human use on other resource uses, such as recreational activities or wildlife, have been obliterated (returned to production) or put-to-bed (stabilized). More roads are scheduled for such action.

Use of the roads rather than the roads themselves cause most of the impacts on other resource uses and activities. The road system is managed through specific management objectives and traffic regulations. Management of roads may consist of closing to public use year around, seasonal closures, or controlled use for specific purposes. Reasons for this level of travel management are to minimize undesirable impacts of human use on resource uses such as recreational activities and wildlife. It also assists in controlling rising maintenance costs.

Areas where indiscriminate off-road driving results in erosion or aesthetic problems and areas where traffic is legally prohibited have been closed to off-road vehicle use. Areas where ORV use has not resulted in resource conflicts are open to vehicular traffic and ORV use. The present travel management status is displayed on the San Juan National Forest travel map.

Demand for use of Forest roads is significant. Several roads are now used at such a level that any increases in traffic volume will cause congestion and safety problems. Four-wheel drive interests want more opportunities for off-road and primitive-road use. Owners of private inholdings want exclusive access to their property. Sightseers want more roads with better driving surfaces. Although there is demand for numerous and varied road opportunities, some users want fewer roads.

Trails - The San Juan National Forest trail system consists of approximately 380 miles within three wildernesses, and 710 miles of trails outside wilderness. Trail use outside wilderness is predominantly recreation oriented, although approximately 80 miles are used primarily for stock trails, fire access, or other miscellaneous uses.

Trail maintenance has not kept pace with the growing recreational use of trails. It is estimated that over half of the total trail system is in need of some kind of reconstruction treatment at this time, entailing the rebuilding of entire sections of tread and/or relocating the trail around wet or rocky areas.

In 1979, two trails on the Forest were established as National Recreation Trails (NRT) under the National Trails System Act. The Calico NRT on the Dolores District is 6.5 miles in length, and the Highline Loop NRT on the Mancos District is 20 miles long.

About 120 miles of proposed Continental Divide National Scenic Trail (CDNST) corridor occurs on the San Juan National Forest. Much of this trail crosses numerous times between the Rio Grande and San Juan National Forests. Projected demand for trails is expected to increase corresponding with the demand for dispersed recreation opportunities.

Protection

Fire - The fire management program in the San Juan Basin of southwestern Colorado is a coordinated interagency effort involving Federal, State and local agencies. The overall fire management objective is to provide a cost-effective program which responds to land and resource management goals and objectives. This includes fire protection and use.

Since 1978, there have been two separate fire suppression objectives for the San Juan National Forest. The first, applied on all but 305,000 acres of the Forest, is to control all fires at ten acres or less. The second, applied on the remaining 305,000 acres of the Forest, includes variable acreage control objectives, depending upon the area involved and fire intensity. Other fire management objectives for the entire Forest are to protect air quality through management of wild and prescribed fires and to use prescribed fire to reduce fuel hazards and accomplish other resource management objectives.

The average number of wildfires varies considerably with weather conditions. In the past 20 years the number of man-caused fires has decreased slightly, while lightning fires have increased. The annual burned acreage has not changed significantly over the past two decades. From 1961 to 1970 an average of 109 acres were burned per year, whereas from 1971 to 1980 an average of 112 acres were burned per year.

Some increase in the number of man-caused fires can be expected as development and visitor use increase, although this will not drastically affect the wildfire situation.

The potential for large destructive fires does exist on the San Juan National Forest. Over the next 40 to 100 years, due to aging and decay of forested areas, fuel hazards will likely increase and could result in larger, more destructive fires. This is particularly true in areas of the Forest which receive little vegetation treatment.

Integrated Pest Management (IPM) - The Forest's objective is to ensure optimal pest management with respect to environmental concerns, biological effectiveness, and economic efficiency while achieving resource management objectives. The intention is to rely on an IPM policy which will reduce the reliance on chemical methods, and manage resources in a manner that is not conducive to the development and perpetuation of pest problems. Pesticides will be used under prescribed

conditions to protect resource values when their use is prudent and control of potential adverse effects can be minimized.

Significant pests on the Forest include insects (mountain pine beetle, spruce bark beetle, western spruce budworm, western tent caterpillar); noxious weeds (Canadian thistle, toadflax, whitetop, knapweed, spurge); and rodents (mice, gophers, porcupines). At present pest management in forest stands is to meet long-range objectives through prevention measures using vegetation treatment practices, particularly planting, harvesting and utilization practices. Biological, chemical, mechanical means, and prescribed fire are considered where conditions are epidemic. Only western tent caterpillar, western spruce budworm, mountain pine beetle, and noxious weeds are considered to be increasing in population at a rate that would be a threat to resources and uses.

Forest diseases which cause losses include a variety of stem cankers, rusts and root rots. Acting in a much more subtle fashion over time, disease loss possibly exceeds the loss caused by insects. Rot and decay are particularly significant in overmature aspen stands.

Noxious farm weeds are controlled by chemical means, usually in cooperation with county programs. The current level of control is below that required to meet needs identified in noxious weed inventories.

Air Quality - Air quality over the San Juan National Forest is good with respect to all air pollutants. The largest source of air pollution from Forest activities is smoke from both wildfires and prescribed fires, and dust from unpaved roads.

Law Enforcement - The current organization consists of a Law Enforcement Coordinator (Administrative Officer), Zone Special Agent, two Level IV law enforcement officers, and Levels II and III law enforcement officers.

Emphasis to date in law enforcement has been in developed recreation and travel management. Over half of the law enforcement work is associated with developed recreation, such as non-payment of campground fees. Recreation is a major use on the San Juan National Forest. This use continues to increase and as more people use the Forest, more problems will develop.

Cooperative law enforcement agreements are financed with Dolores, Montezuma, La Plata, San Juan, and Archuleta Counties. These agreements call for patrols in heavy use recreation areas.

Major law enforcement problems occur in:

- Recreation facilities and management
- Travel management
- Land occupancy
- Vandalism to government property
- Personal and commercial firewood

NEED TO ESTABLISH OR CHANGE MANAGEMENT DIRECTION

Included in the analysis of the management situation is a determination of the need to change current management direction on the San Juan National Forest. This was accomplished by assessing the current situation, determining productive potentials, and reviewing public issues and management concerns. The following determinations were made.

Vegetation

Vegetation is a dominant feature of the landscape and its management is, to a large degree, the subject of the Forest Plan. Low levels of vegetation management in the past combined with an active program of wildfire suppression have resulted in a situation where most of the Forest is covered with mature vegetation. This situation is not likely to change dramatically in the future as large acreages of the Forest are classified wilderness or are very inaccessible. In these areas the pattern of natural succession will continue.

To better address most of the issues and concerns, the Plan has been developed to more aggressively manage the vegetation where physical barriers permit and favorable economic conditions exist. It is the direction of this Plan to use the management activities of controlled fire, fencing, seeding, commercial timber sales, and thinning to enhance and protect a wide range of resource values that involve visual quality, recreation, and wildlife habitats.

Management activities that are properly located and timed will significantly reduce the risk of catastrophic vegetation losses caused by insect, disease, or wildfire.

Socially, the attractiveness of the natural mountain environment depends largely on healthy vegetation. Economically, most of the communities close to the Forest are dependent, at least to a degree, on vegetation as a source of products or natural beauty. Radical changes in the vegetation patterns caused by insects, disease, fire, or other activities are most unattractive and probably would result in fewer visitors and the loss of property values. Generally, the most efficient way to manage the forested vegetation is through properly designed timber sales. The lumber or fiber by-products of these activities also satisfy the needs of the consumer.

Recreation

The Forest has adequate camping capacity for the foreseeable future, but there is a need for increases in the number of developed trailheads adjacent to major travel routes (excluding State or U.S. Highways) and at destination areas.

Sites informally referred to as "rest stops" (usually classed as observation sites) along State and U.S. Highways are heavily used and apparently highly desired by the public. However, many such sites should be maintained by the Colorado State Department of Highways, not the Forest Service, since use is generated more by the existence of the highway than by the San Juan National Forest environment.

Maintenance and rehabilitation of existing facilities should be given priority over new construction. Consideration should be given to using concessionaires in the operation and maintenance of existing campgrounds. Priority should be given to expanding existing sites. Construction should be limited to areas which lend themselves to concessionaire operation.

Summer and winter backcountry recreation use should be provided through increased trail management including evaluation and a determination of needs and location of hiking, cross-county skiing, snowmobile trails, and dispersed trailhead facilities. Trails should be evaluated and consideration given to closing those with low use.

Visual Resource

Efforts should be made to upgrade the quality of scenic and visual resources. Particular emphasis should be given to areas where visual resource degradation has occurred along major travel routes. Vegetation treatment should be utilized to enhance the visual resource throughout the Forest. Long-term considerations are necessary if aspen stands are to continue along important travel routes. This will cause short-term disruption of the aesthetics, but will be a necessary step to provide for the long-term objective.

Wildlife and Fish

The San Juan National Forest will be called upon to provide winter range for major wildlife species. Population goals for major species should be established and increased emphasis should be placed on management to achieve long-range vegetation composition and vegetation diversity objectives.

Fishing demand on the Forest is met largely through artificial stocking programs. Emphasis should be placed on fisheries habitat management to bring key fisheries up to productive potential.

Emphasis should also be placed on nonconsumptive uses of wildlife such as bird watching, photography, and painting.

Range

Demand trends point to the need to increase forage for domestic livestock and wildlife. Range management practices that increase forage production, increase livestock grazing capacities, and protect soil and water resources should be implemented if demand for domestic livestock grazing is to be met.

Timber

A change in the direction of the reforestation program is needed to address regeneration problems and poor plantation success. Additional site productivity studies are needed to determine the best sites for timber regeneration and growth potential. The Forest should emphasize

timber production on highly productive sites. A comprehensive management program is needed to improve forest tree health and vigor, perpetuate aspen stands, and improve forest diversity for wildlife habitat.

Water

Management emphasis should be directed toward increases in water yield through vegetation treatment within those watersheds having the greatest water yield increase potential. The Forest should emphasize an increased monitoring program to monitor the effects of activities such as clearcutting or road building on water quality.

Facilities

Refinement of the travel management direction is needed for roads, trails, maintenance, road closures and travel restrictions based upon resource protection and management activities.

Protection

Since fuel loading increases will result from reduced harvesting on some lands, increased use of prescribed burning is needed to accomplish management objectives.

Smoke management should be improved in sensitive areas near communities and heavy use areas. This will require a greater investment in a climatology data base.

Decisions will have to be made on the level of insect, disease and weed pest levels to meet the integrated pest management objective. This will result in several levels of pest acceptance based on biological effectiveness, economic efficiency and environmental concerns associated with a given management area.

THE FUTURE

This section describes how the San Juan National Forest is expected to change under implementation of the Forest Plan. The first part, describes the physical and biological future by planning questions. The second part describes the social and economic future of the proposed action.

The key feature of the Forest Plan is its multiple use mix of outputs. No resource output is emphasized to the extent that standards for other resources are violated. An integrated mix of resource outputs is provided rather than a mix that maximizes some outputs to the exclusion of others.

Consideration of the social resource is given equal importance. By applying socially responsible management principles, the Forest Plan addresses existing public issues and management concerns and allows for identifying and addressing new issues as they emerge, as well as for maintaining or enhancing local community stability.

Implementation of this direction will be coordinated with the policies, programs, and objectives of other Federal agencies and State and local governments. Such coordination will ensure a mutual understanding, if not a compatibility, with other on-going programs.

PHYSICAL AND BIOLOGICAL FUTURE

This section describes expected future physical and biological conditions in relation to each of the planning questions. This section also addresses the disposition of public issues and management concerns identified in the scoping process and during the review of the draft EIS.

Planning Question 1 - How should the San Juan National Forest be managed to provide a broad spectrum of dispersed recreation opportunities?

The major issues related to this planning question originate from a perceived conflict between non-motorized dispersed recreation and other uses of the Forest such as livestock grazing and various forms of motorized recreation.

The Forest Plan calls for a large area (approximately 44 percent, including wilderness) of the Forest to be managed for various types of non-motorized recreation use. Additional trails and trailheads will be constructed to accommodate increases in use.

The other half of the Forest area will be available for road-oriented types of dispersed recreation, although a portion of this area will have an environment visibly modified through management activities. Additional roads will be made available for recreation activities as new areas are accessed for other resource management activities. Intensive livestock management, which will occur on approximately one-fourth of the Forest, will continue to result in some user conflicts, although by informing recreationists where intensive livestock use is occurring, the extent of these conflicts can be minimized.

Planning Question 2 - What is the appropriate role of the San Juan National Forest in providing campgrounds, interpretive sites, picnic areas, and rest stops?

A major issue related to this planning question is the extent to which the San Juan National Forest should compete with the private sector in providing developed site recreation opportunities. This issue, coupled with the fact that the San Juan National Forest has a large supply of dispersed recreation opportunities not available in the private sector, leads to a conclusion that National Forest management should be oriented more towards the management of dispersed opportunities. This leaves a portion of the demand for developed experiences to be met by the private sector. The appropriate role is for the San Juan National Forest to continue to offer developed recreation, but not to the extent of competing with the private sector.

The Forest Plan responds to this question by providing for the closure of three potentially competitive sites, increasing the capacity of two heavily used sites, and the consideration of offering six existing sites to the private sector for concessionaire operation. No new developed sites, other than the proposed development connected with the McPhee Reservoir, will be constructed, although further development at the Chimney Rock interpretive site is planned. Rest stops, more properly classified as observation sites, are a type of development best developed by an agency other than the San Juan National Forest, and then only in very select locations.

Specifically, the Forest Plan calls for a reduction in competition through elimination of Thompson Park, Ute, and Piedra Campgrounds. Six additional sites will be considered for operation by concessionaires; these are South Mineral, Old Timers, Graham Creek, North Canyon, Pine Point, and Middle Mountain Campgrounds. Expansion of two sites, South Mineral and Middle Fork Campgrounds, will take place to accommodate heavy use. Reconstruction or rehabilitation will take place on six additional sites, and these plus the remaining ones will continue to be operated and maintained by the San Juan National Forest.

Facilities will be removed from the San Juan and Dolores Canyon Overlooks in order to reduce administration costs.

Planning Question 3 - What resources and uses should be allocated for downhill skiing on the San Juan National Forest?

The major public issues and management concerns associated with this planning question relate to impacts on local communities and major ski area development. Under the Forest Plan, existing winter sports areas at Purgatory and Stoner would continue to operate. The expansion of Purgatory under the presently approved permit would take place, consideration would be given to minor expansion at Stoner and three of the inventoried sites rated "good" or better (East Fork, Windy Pass, and Grayrock-Cascade) would be retained for possible development. Of these three sites, both East Fork and Windy Pass are located in the vicinity of Pagosa Springs. The third site, Grayrock-Cascade is located just north of Purgatory Ski Area, which is within 30 miles of Durango.

The social and economic changes presently taking place in the Pagosa Springs area, as well as the economic diversity of the Durango area, indicate that these towns are capable of absorbing the effects of new ski development without major impacts on the social and economic structure. Impact studies would be needed to confirm this prior to the granting of any new permits. The Forest Plan only manages the sites to protect their ski area potential. It does not ensure they will be developed.

Planning Question 4 - How much classified wilderness should the San Juan National Forest have, and how should it be managed?

The major public issues and management concerns related to wilderness management center around conflicts between both existing and potential users of lands that are or may become designated wilderness areas. The Forest Plan identifies the Piedra (41,500 acres) and West Needle (15,800 acres) Wilderness Study Areas as suitable for wilderness. Management of all wildernesses will be in accordance with the Wilderness Act of 1964 and will occur with a minimum of direct controls on recreation visitors.

The South San Juan Wilderness Expansion Study Area (32,800 acres) is determined not-suitable for wilderness and should be released for non-wilderness management.

Planning Question 5 - What kind of transportation system is necessary to serve future resource management and public needs?

A significant portion of the public issues and management concerns related to transportation center around the apparent conflict between those who desire increases and improvements in access to the Forest and those who feel that there is sufficient or even too much access. The transportation system is critically related to the degree to which most other resources can be utilized or enjoyed; therefore, a well designed system is important to integrated resource management on the Forest.

Even though approximately 770 miles of new road are to be constructed over the next 50 years, the number of system roads maintained will decrease by about seven percent of present mileage. Roads will be removed from the transportation system in response to long-range road density objectives prescribed for management areas. They will be obliterated (returned to production) when the facility will no longer be used or planned as a travelway or put-to-bed (stabilized) when use is not planned for an extended period of time. Roads closed to vehicular travel are still available for horseback and for foot travel. Of the total area presently in unroaded or low road conditions, 66 percent will remain in that condition over the next 50 years.

Approximately one-third of the 2,699 miles to be maintained will be maintained only to a standard necessary to protect the road investment and the surrounding resources. These roads will not be open to public traffic.

The Forest Plan also calls for a moderate emphasis to be placed on trail reconstruction. This includes trails for livestock and recreation use. Total trail miles would decrease by approximately eight percent over the planning period.

Planning Question 6 - How should the San Juan National Forest manage its tree resources?

Public issues and management concerns related to this planning question address the growing and harvesting of trees for commercial

wood products and the benefits or conflicts with other resource values and uses of forested lands.

There is a feeling of some individuals and interest groups that timber management on the Forest is neither economically efficient nor capable of ensuring a continual flow of high quality timber from the land base. The Forest Plan calls for elimination of timber management activities on those areas not capable of being adequately regenerated within a specified period of time. Specifically, areas of nonstocked ponderosa pine and pine on lands greater than 30 percent slope will no longer be considered as suitable for timber management because of lack of regeneration success.

On those areas that are suitable for timber management, prescribed silvicultural practices will be used to produce high quality pole and sawtimber volume at a level of 38 million board feet (MMBF) per year during the first decade of the planning period. Harvest volume by the year 2030 will reach 48 MMBF per year which is 63 percent of the long-term sustained-yield of 76.6 MMBF. Vegetation treatment will be used to enhance natural regeneration and will be coordinated to provide both timber and non-timber benefits. Timber harvests will be designed to improve diversity for wildlife, enhance aesthetics, and improve snowmelt patterns. Timber-related activities will also comprise an integral part of the pest management program on the Forest.

Conflicts between timber and other resources are addressed by the Forest Plan in that sales are designed specifically to benefit range, wildlife, or water resources. Visual resource management considerations will be an important part of sale design and layout. Roads constructed for timber access will be designed considering the needs for activities such as recreation, firewood gathering, and Christmas tree cutting.

On lands unsuitable for timber management, vegetation treatment will be used to satisfy other purposes and objectives although merchantable timber volume may become available as a result.

Planning Question 7 - What is the role of the San Juan National Forest in providing wildlife habitat?

Most public issues and management concerns related to wildlife have as their theme either the need for more attention to specific wildlife habitat needs or the conflicts between wildlife and domestic livestock grazing.

The Forest Plan calls for a 75 percent increase in winter range carrying capacity for deer and a 30 percent increase for elk by the year 2030. Wildlife habitat diversity would be improved on approximately 31 percent of the Forest, and all miles of stream presently classified as suitable for improvement would be improved for fish habitat by the year 2020. Specific timber sales will be designed

and laid out which have improvement of wildlife habitat as their major objective. All sales would be designed to improve habitat to some extent.

Conflicts between wildlife and domestic livestock grazing will be reduced through improvement of range conditions across the Forest as well as by improving the distribution of domestic stock.

Planning Question 8 - What is the role of the San Juan National Forest in providing for grazing of domestic livestock?

Most public issues and management concerns related to grazing deal with conflicts between grazing and other activities and the need to determine and intensify livestock management on the Forest. The Forest Plan calls for authorized livestock grazing to increase by three percent during the first decade, with further gradual increases to 18 percent from present levels by the year 2030. Continuation of present levels for a period of time is needed to allow recovery of land in less than satisfactory condition. Once recovery is made, gradual increases can be allowed, although careful monitoring will be necessary to ensure that overgrazing does not take place.

Intensive livestock management will take place on approximately 59 percent of the San Juan National Forest. Intensive management involves relatively high costs in some areas, yet results in greater yields per acre than other management systems. Areas under intensive management allow other areas to be managed more extensively for other uses such as recreation and wildlife; thus reducing conflicts with livestock grazing.

Planning Question 9 - How should the San Juan National Forest respond to increasing demand for high-quality water?

Public issues and management concerns related to water express the need to provide a continued or increased quantity of high-quality water for present and future needs. The Forest Plan calls for an increase in total water yield from the Forest to a level of approximately 56 percent of the potential by the year 2030. This will be accomplished through coordination with silvicultural activities mainly at higher elevations. Vegetation treatment will be designed to increase water yield through improved snowmelt patterns and runoff.

Water meeting water quality goals will also increase slightly as those watersheds presently below water quality standards are allowed to recover through natural successional processes. Wetland and riparian ecosystems will be maintained, or enhanced in some areas, as a result of protection measures called for in the Forest Plan.

Planning Question 10 - What is the role of the San Juan National Forest in regard to the identification, protection and use of cultural resources?

Public issues and management concerns related to cultural resources (CR) express the need to identify (inventory), protect, and develop sites before opportunities to do so are foregone. The present inventory strategy that relies heavily on data generated from field surveys conducted for resource activities will continue under the Forest Plan. Also, some CR surveys will be completed for "high sensitivity" zones independent of a specific resource use proposal. Approximately 50 percent of the Forest will have been inventoried and probably all major CR properties will be accounted for by 1990 at this level of commitment.

Efforts to protect important CR properties, especially from damage caused by illegal activities, e.g., vandalism and "pot hunting," will be increased under the Forest Plan but still remain at a minimal level. Enforcement of the current "avoidance" policy will remain as our primary protection tool but with monitoring safeguards to ensure better compliance and procedural adequacy.

Suitable CR properties will be developed for public education and recreation under the Forest Plan. Such development, however, will be largely restricted to low cost and maintenance projects such as interpretive signing, literature, and self-guided trails. Relatively high level development will be restricted to the Chimney Rock Archeological Area.

Planning Question 11 - How should the San Juan National Forest respond to mineral resource development?

Most mineral related issues and concerns express the need for controlling adverse surface resource impacts while at the same time being responsive to the Nation's need for minerals. More specifically, where and under what conditions should mineral exploration and development be allowed on the Forest? Oil, gas, and geothermal leasing, exploration, development, and related geophysical investigations within wilderness and Wilderness Study Areas (WSA's) were identified as activities adversely affecting the environment and wilderness character; however, the Wilderness Act of 1964 permits exploration and development until January 1, 1984.

Application of the minerals management direction contained in the Forest Direction of the Forest Plan will prevent or control adverse impacts on surface resources both inside and outside wilderness and WSA's. On the entire San Juan National Forest, including wildernesses and WSA's, the Forest Service would recommend that the Bureau of Land Management issue oil, gas and geothermal leases on 1,550,000 acres if any lease applications are received. Approximately 1,290,000 acres could be leased with surface occupancy permitting a full range of exploration, development, and production activities; 260,000 acres could be leased with a no surface occupancy stipulation. Oil and gas deposits within the no surface occupancy areas could be recovered through directional drilling or other techniques which will not disturb surface resource values. Leases issued for lands which are part of the National Wilderness

Preservation System would include reasonable stipulations as required by Section 4(d)(3) of the Wilderness Act. Leases issued for lands which are recommended for addition to the Wilderness System would include stipulations, as provided by the 1920 Minerals Leasing Act. These stipulations are contained in Appendix H.

To minimize surface disturbance until commercial quantities of oil or gas are found, exploratory drilling in wilderness must be conducted using airlift mobilization. If commercial quantities of oil and gas are discovered, roads and ancillary facilities would be permitted within those areas suitable for surface occupancy.

Planning Question 12 - How should the San Juan National Forest respond to the increasing demand for special uses and land adjustments?

Major public issues and management concerns related to special uses and land adjustments either express a desire for more access to the Forest or identify conflicts between special uses, such as utility corridors and summer homes, and other types of uses. The San Juan National Forest will respond to the increasing demand for special uses and land adjustments by:

1. A priority system on both land adjustments and special use permits to identify those cases having the greatest public benefit.
2. Close coordination with local governments including the initiation of memorandums of understanding.
3. Increased proponent participation in the furnishing of data for complete analysis of proposals and additional information or support as needed (e.g., archaeological reports, surveys) for case completion and to meet proponent's time frames.

Within the first 10 years, the Forest Plan calls for purchase or acquisition of 500 acres of land, acquiring 3,250 acres of land offered by exchange, acquisition of 30 rights-of-way, and location of 375 miles of landlines.

SOCIAL AND ECONOMIC FUTURE

The area surrounding the San Juan National Forest, identified as Social Resource Unit K, is characterized by a relatively stable economy in which overall settlement and employment patterns are changing very slowly. Implementation of the Plan will most likely not result in major changes in the general economic picture, although specific sectors may experience a level of growth which can be attributed directly to activities taking place on the Forest. The 1980 population of the SRU was estimated at 49,860 people, with population projections for 1995 ranging from a low of 72,200 to a high of 80,300. This would be an increase ranging from approximately 22,000 to 30,000 people. Estimates based on the level of outputs and activities in the Plan indicate an increase in population of approximately 21,000 people whose source of income is directly or indirectly associated with the Forest.

Total employment associated with the Forest could grow from approximately 6,700 to 9,500 jobs by 1995, for an increase of approximately 40 percent. Growth would be most acutely realized in the tourism sector where employment could increase by as much as 85 percent or more. This assumes that the factors having caused recent increases in tourism will continue to operate. Examples include the availability of relatively inexpensive transportation and increased leisure time. Employment in the agricultural and timber producing sectors is also expected to rise as a result of generally higher levels of timber volume and livestock forage production. This assumes that the currently depressed housing market will recover.

It is possible to more specifically identify these changes from a geographic standpoint. No significant shifts are expected in relation to the relatively important positions that retail trade and tourism hold in the Animas Human Resource Unit, or away from the agricultural and timber emphases in the Montelores Human Resource Unit. In the Montelores Area, there will most likely be an increase in both the recreation and mining sectors as the McPhee Reservoir and CO₂ mining projects come on line, although agriculture and timber-related activities will continue to be important economic activities, at least in the immediate future. The Pagosa Human Resource Unit is currently experiencing a shift away from a predominately agriculture and timber economic base to a more diverse economy with significant growth being experienced in the tourism and housing sectors. This trend is expected to continue under the Plan. Human resource management programs carried out by the agency will continue to emphasize employment and training programs for youth, older Americans, minorities, and the disadvantaged to the extent that budget allocations will allow.

Dollar returns to the U.S. Treasury will increase significantly over the 50-year planning period under the assumption that demand for the various revenue-producing goods and services on the Forest will continue to rise. This reflects the strong emphasis on income-producing resources, specifically timber and livestock forage in the Plan. Under this same assumption, payments to counties will increase in direct proportion to returns to the Treasury, and could result in a doubling of payments some time within the planning period.

The costs of implementing the Plan will increase approximately 20 percent in real dollars by the end of the first decade. Cost increases are in both operation and maintenance, including salaries of personnel, and in capital investments. Employment in the agency is expected to remain fairly constant unless budgetary allocations are significantly reduced.

RESEARCH NEEDS

The planning process identifies areas of research needed to support or improve management of the San Juan National Forest. They are summarized below for consideration for research projects and will be updated during periodic evaluation of Plan implementation.

Recreation

Research is needed to determine the effects of developed sites (campgrounds, trailheads) on hunting and fishing recreation.

Wildlife and Fish

Research is needed on how best to determine vegetation diversity (composition plus structural), its juxtaposition and interspersion and how these factors actually affect population levels of various management indicator species. Questions that need to be answered include:

- Can diversity be determined effectively for many species using a common area or does each species need to be studied individually?
- What changes in diversity and to what magnitude of change (size and time span) is necessary to markedly affect population size of primary management indicator species?
- What is the total effect of disturbances that change diversity through vegetation manipulation practices? This also relates to overall visual quality and total forage composition and production to be available for wildlife and domestic livestock.

Timber

Research needed to answer questions related to timber management are:

- A study of the physical and chemical site properties affecting timber productivity and regeneration (especially in ponderosa pine).

This research should include evaluation of regeneration problems in the ponderosa pine type, and field, lab, and greenhouse studies to evaluate the relationship between site characteristics and regeneration.

- Effects of oak brush competition on the growth of ponderosa pine.
- Stand regeneration studies under local conditions to determine the best silvicultural practices to use to ensure adequate natural regeneration.
- Development of site index/productivity index tables for local species on local site conditions.

Planting stock research to obtain precise data relative to size and shape of containers, root configuration, planting season, number of trees per square foot, age of stock to be planted and lifting data.

Soil and Water

The majority of existing information relating to soil productivity and its capability comes from agricultural research. More information on forest soils is needed to help answer the following:

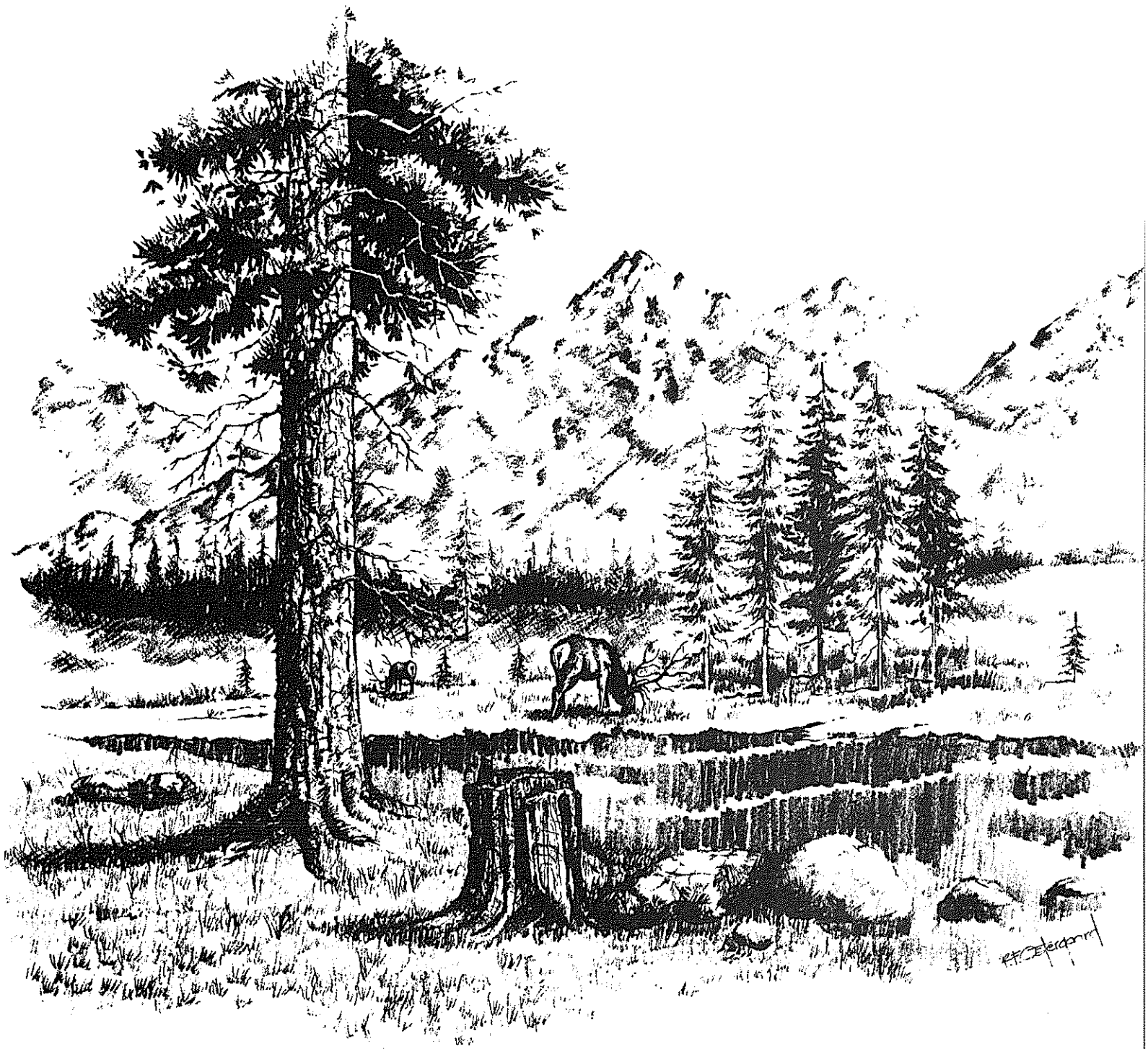
- How do management activities affect soil productivity?
- How much erosion is acceptable for the soils on the San Juan National Forest?
- Is compaction a problem on the Forest? If so, what is the best way to prevent or mitigate it?
- Is fertilization feasible or desirable?
- What soil features should we monitor to evaluate changes in soil productivity?

Protection (Includes Prescribed Fire)

The Forest Service will continue the present research study in the ponderosa pine-oakbrush type. This study relates to the on-site vegetation effects of seasonal and interval burning, fuel accumulation, and seedbed preparation within this type. The study should be expanded to determine effects of burning on soil and water resources.

A study is needed of local historic fire regimes so that intervals of natural fire and the resulting vegetation and soil succession trends can be predicted. Stylized fuel models need to be developed to represent local situations and resource fire effects.

Also, a study is needed to improve the risk interpretation for forest pests and weeds on various sites.



III. management direction

CHAPTER III

MANAGEMENT DIRECTION

IMPLEMENTATION

This San Juan National Forest Land and Resource Management Plan provides long-range management direction for the San Juan National Forest.

As soon as practicable after the Plan is approved, the Forest Supervisor will ensure that, subject to valid existing rights, all outstanding and future permits and other occupancy and use documents which affect National Forest System lands are consistent with the Plan. The management direction contained in the Forest Plan is used in analyzing proposals by prospective Forest users. All permits, contracts, and other instruments for occupancy and use of the National Forest System lands covered by this Plan must be consistent with the Management Requirements in both the Forest and Management Area Direction sections. This is required by 16 USC 1604(i) and 36 CFR 210.10(e).

Subsequent administrative activities affecting National Forest System lands, including budget proposals, shall be based on the Plan. The Forest Supervisor may change proposed implementation schedules to reflect differences between proposed annual budgets and actual funds received. Schedule changes resulting from the budget appropriation process will be considered as an amendment to the Forest Plan. The final annual budget allocation for the National Forest will serve as documentation of the amendment. Changes resulting from the budget appropriation process shall not be considered a "significant" amendment, and therefore will not require the preparation of an environmental impact statement. Budget changes which significantly alter the long-term relationships among outputs in the Forest Plan will be evaluated in conjunction with the five-year update of the RPA Program, and may result in an amendment or revision of the Forest Plan.

Management direction is expressed in terms of both Forest Direction and Management Area Direction. Forest Direction consists of goals, objectives and management requirements which are generally applicable to the entire Forest. Management Area Direction contains management requirements specific to individual areas with the Forest and are applied in addition to the Forest Direction management requirements. Management direction responds to public issues, management concerns, and opportunities within the availability, suitability and capability of the land and resources.

Implementation of this direction is the key to translating the goals, objectives, and management requirements stated in the Forest Plan into on-the-ground results. The Forest Plan is implemented through the program development, budgeting, and annual work planning processes. These processes supplement the Forest Plan and make the annual adjustments and changes needed to reflect current priorities within the overall management direction contained in the Plan.

The Forest Plan provides guidance for developing multi-year implementation programs for each Ranger District. The Plan's goals, objectives, and management requirements are translated into these multi-year program budget proposals which specifically identify the activities and expenditures necessary to achieve the direction provided by the Forest Plan. These implementation programs form the basis for the Forest's annual program budget.

Upon approval of the final budget appropriation for the Forest, the annual program of work is finalized and implemented on the ground. The annual work plan provides the detail to the program budget proposals necessary to guide the land managers and their staffs in responding to the direction of the Forest Plan. The activity files in the data base and the Program Accounting and Management Attainment Reporting System provide information for monitoring the accomplishment of the annual Forest program.

Future environmental documents, when needed, will supplement the Forest Plan Environmental Impact Statement (EIS). Environmental analyses will use the Forest Plan direction as an umbrella. Additional detail will be included in the environmental documents for factors appropriate for project level decisions.

The management direction of this chapter is composed of two major parts: Forest Direction and Management Area Direction.

Forest Direction consists of goals, objectives, and management requirements. The goals and objectives provide broad overall direction regarding the type and amount of goods and services that the Forest will provide. The management requirements contained in the Forest Direction section set the minimum conditions that must be maintained while achieving the goals and objectives.

Management Area Direction consists of management area prescriptions applicable to specific management areas shown on the Forest Plan map. The management area prescriptions contain management requirements specifying which activities will be implemented to achieve the goals and objectives. Management requirements contained in individual management area prescriptions are applied to specific areas shown on the management area map in the back of this document.

Implementation maps indicate the estimated timing and vicinity or location of proposed and probable management practices for the first 10-year period. An implementation map is a composite of seven and one-half minute quadrangle map overlays. These overlays supplement the Forest's vegetation data base and are available for review at the applicable Ranger District offices. This map will be updated annually to reflect project completion, changes in scheduling due to funding changes, and adjustments in projects resulting from better site specific knowledge.

Additional direction and information is contained in Appendices A through H. Appendix A shows priorities by management area for implementing various practices. Appendix B contains the ten-year timber sale

and reforestation summaries for the San Juan National Forest; Appendix C summarizes arterial and collector road construction and reconstruction for the next ten years; Appendix D summarizes trail construction and reconstruction; Appendix E summarizes proposed mineral withdrawals and revocations; Appendix F summarizes lands capable, available and suitable for timber production; Appendix G lists roads and trails open to motorized use within Management Area 3A, semi-primitive non-motorized emphasis; Appendix H contains standard and special stipulations for minerals leasing; Appendix I summarizes a Fire Management Analysis.

FOREST DIRECTION

GOALS

The following are general statements of goals to be achieved sometime in the future. They are expressed in broad terms and are timeless in that they have no specific attainment date. These goal statements provide the basis for the specific objectives listed later in the chapter. Goals respond to the Planning Questions listed in Chapter II as well as appropriate laws, regulations, and policies.

The goals of the Forest Plan are:

Vegetation

- Allow natural succession to proceed without human intervention in all designated wilderness and wilderness study areas.
- Manage vegetation types outside of wilderness to provide multiple use benefits commensurate with land capability and resource demand.
- Improve the health and vigor of all vegetation types.
- Integrate vegetation management with resource management in all functional areas -- recreation, wildlife, range, timber, and water.

Recreation, Cultural and Visual

- Provide nearly equal areas for motorized and non-motorized dispersed recreation opportunities.
- Provide areas for semi-primitive non-motorized recreation opportunities to perpetuate that recreation experience.
- Provide the opportunity for developed recreation sites to be operated by public concessionaires.
- Provide more cost effective service to the public by closing low-use developed recreation sites and expanding heavy-use sites.
- Provide opportunities for expanding downhill skiing in Human Resource Units that can accommodate the social and economic impact.

- Locate, determine significance, and where appropriate, preserve historical and archaeological sites.
- Manage exceptional historical and archaeological sites for increased public use and visitation, while still protecting the values of the site.
- Make historical and archaeological sites available for study by agencies involved in research.
- Enhance and/or preserve scenic values along heavily traveled roads, use areas and trails through management activities.

Wilderness

- Provide the opportunity for additions to the National Wilderness Preservation System.
- Manage wilderness to preserve the wilderness character and provide for compatible human use and enjoyment through indirect control methods.

Wildlife

- Increase winter range carrying capacity for deer and elk.
- Improve wildlife habitat diversity on approximately half of the Forest.
- Improve fish habitat on suitable streams and low elevation ponds and lakes.

Range

- Provide for grazing of livestock at moderately increased levels.
- Provide for intensive livestock management on approximately 60 percent of the Forest.

Timber

- Practice vegetation management to provide multiple benefits using a comprehensive timber management program as a tool.
- Implement an integrated pest management program emphasizing silvicultural management of timber stands to prevent and control insect infestations and disease.
- Improve the Forest-wide age class and species diversity to improve forest health and wildlife habitat.
- Implement silvicultural practices on areas suitable for timber production to provide roundwood and sawtimber volume above the present level.
- Specifically design the timber sales on lands suitable for timber management to benefit other resource objectives.

- Perpetuate the aspen type.
- Eliminate the reforestation backlog by the end of 1985.
- Continue timber stand improvement in ponderosa pine stands through prescribed burning of Gambel oak to reduce competition.
- Determine if ponderosa pine sites now designated as not suitable for timber production can be reforested.

Soils and Water

- Protect soil and water productivity so that neither will be significantly or permanently impaired.
- Protect streams, lakes, riparian areas, and other bodies of water through management activities.
- Improve water quality by allowing those watersheds presently below water quality standards to recover.
- Increase water yield through land treatment measures consistent with other resource objectives and water quality standards.

Minerals

- Encourage mineral exploration, development and extraction consistent with management of surface resources.
- Protect surface resources and environmental quality in accordance with laws and regulations.

Lands

- Provide for increased opportunities for exchange of National Forest System lands.
- Pursue acquisition of necessary rights-of-way to facilitate public access to National Forest System lands.

Facilities

- Manage the transportation system for increased cost-effectiveness and efficiency.
- Provide for a slight increase of maintained road mileage but maintain approximately one-third of the mileage only to protect the road investment and surrounding resources, and close to public use.
- Retain three-fourths of the present acreage in unroaded or low-roaded densities.
- Provide for the reduction of total trail miles while emphasizing reconstruction on trail miles remaining.

Human and Community Development

- Provide the opportunity for economic growth of industries and communities dependent upon Forest outputs.
- Encourage equal employment opportunities for women, minorities, the elderly, and the handicapped.
- Provide the opportunity for community stability and cohesion within the Human Resource Units to remain in productive harmony with the activities on the San Juan National Forest.
- Provide the opportunity for human resource programs that assist the disadvantaged with employment opportunities.
- Encourage the Volunteers in the National Forest Program to enhance Forest Service activities.

Protection

- Provide a cost-effective level of fire protection to minimize the combined costs of protection and damages, and prevent loss of human life.
- Provide air quality compatible with federal and state laws.
- Prevent and control insect and disease infestations where feasible and when attainment of management objectives are threatened.

OBJECTIVES

The following objectives listed in Table III-1 are concise, time-specific, measurable results that respond to the goals listed earlier in this chapter. These objectives are the basis for the management requirements listed in the Forest and Management Area Direction section which follows.

TABLE III-1

Projected Average Annual Outputs, Expenditures, Costs, and Returns

Activity	Units	1980	Time Periods					
			1981-1985	1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
<u>RECREATION</u>								
Developed (includes downhill skiing)	Thousand Visitor Days <u>1/</u>	612	659	1,105	1,521	1,925	2,387	2,639
Downhill Skiing	Thousand Visitor Days	138	115	295	495	675	940	1,090
Dispersed (includes off-road motorized)	Thousand Visitor Days	873	1,170	1,430	1,790	2,220	2,590	2,780
Off-Road Motorized	Thousand Visitor Days	63	80	100	130	160	190	200
Trail Construction/Reconstruction	Miles	12	7	40	40	40	25	25
<u>WILDERNESS</u>								
Wilderness Management	Thousand Acres	355	412.4	412.4	412.4	412.4	412.4	412.4
Wilderness Use	Thousand Visitor Days	139	232	341	456	585	683	787
<u>WILDLIFE & FISH</u>								
Elk Winter Range Carrying Capacity	Thousand Animals	12.8	13.7	13.7	14.3	15.1	15.8	16.6
Deer Winter Range Carrying Capacity	Thousand Animals	16.4	19.4	19.4	21.2	23.8	26.1	28.7
Structures	Number	29	79	79	61	62	62	47
Big Game Hunting <u>2/</u>	Thousand Visitor Days	92	125	140	198	204	287	228
Small Game Hunting <u>2/</u>	Thousand Visitor Days	16	27	31	26	42	35	36
Fishing <u>2/</u>	Thousand Visitor Days	137	205	249	316	351	371	380
Non-game Use <u>2/</u>	Thousand Visitor Days	10	23	36	18	52	45	50

TABLE III-1 (Continued)

Projected Average Annual Outputs, Expenditures, Costs, and Returns

Activity	Units	Time Periods						
		1980	1981- 1985	1986- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
<u>RANGE</u>								
Grazing Use	Thousand Animal Unit Months <u>3/</u>	170.2	162.6	175.4	187.5	192.5	197.2	200.6
<u>TIMBER</u>								
Sale Offerings <u>4/</u>	Million Cubic Feet	11.4	8.6	10.3	10.5	11.0	11.5	12.0
	Million Board Feet	45.7	34.2	41.3	42.0	44.0	46.0	48.0
Reforestation <u>5/</u>	Thousand Acres	3.4	2.5	2.4	1.3	1.6	0.3	1.8
Timber Stand Improvement	Thousand Acres	3.3	1.9	9.4	8.9	8.7	8.7	6.4
<u>WATER</u>								
Water Yield	Million Acre-Feet	2.50	2.501	2.501	2.513	2.525	2.526	2.527
Water Meeting Water Quality Goals	Million Acre-Feet	1.85	1.85	1.85	1.85	1.89	1.89	1.89
<u>MINERALS</u>	Operating Plans	153	167	168	168	168	168	168
<u>HUMAN & COMMUNITY</u>								
Human Resources	Enrollee Years	31	25	N/A	N/A	N/A	N/A	N/A
<u>LANDS</u>								
Purchase and Acquisition	Acres	0	0	100	100	100	100	100
Exchange	Acres	0	150	500	500	500	250	250
Right-of-Way Acquisition	Cases	4	3	3	3	3	3	2
Landline Location	Miles	29	30	45	45	45	45	45
<u>SOILS</u>								
Resource Improvement	Acres	500	560	447	447	447	447	447
<u>FACILITIES</u>								
Arterial and Collector Road Construction and Reconstruction <u>6/</u>	Miles	5.0	8	12	12	12	12	15

TABLE III-1 (Continued)

Projected Average Annual Outputs, Expenditures, Costs, and Returns

Activity	Units	Time Periods						
		1980	1981-1985	1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
<u>PROTECTION</u>								
Fuel Treatment	Thousand Acres	4.2	4.3	7.2	7.2	7.2	7.2	7.2
<u>EXPENDITURES 7/</u>								
Operation and Maintenance	Thousand Dollars	4,014	3,678	4,412	4,244	4,334	4,300	4,266
Capital Investments	Thousand Dollars	1,584	1,994	2,604	2,425	2,581	2,066	3,092
General Administration	Thousand Dollars	1,001	929	967	963	966	958	972
Backlog 8/	Thousand Dollars	(945)	(1,261)	(302)	(302)	(214)	(214)	(214)
Total Budget	Thousand Dollars	6,599	6,601	7,983	7,632	7,881	7,324	8,330
<u>RETURNS 7/</u>								
Return to Treasury	Thousand Dollars	747	1,287	1,287	1,469	1,290	1,732	1,828

1/ Recreation Visitor Day = 12 hours of recreation for one person or one hour of recreation for 12 persons or any combination thereof.

2/ Wildlife and fishing use figures are also included in dispersed recreation; they are not additive.

3/ Animal Unit Month = the amount of forage consumed by one mature cow or its equivalent in a one-month period.

4/ The same sale offerings are expressed in cubic feet and board feet; they are not additive.

5/ Reforestation figures include site preparation for natural regeneration.

6/ Roads constructed by timber purchasers are not included.

7/ All expenditures and returns are in constant 1978 dollars.

8/ Backlog expenditures include land line location and reforestation which are also included in operation and maintenance and capital investment figures respectively; figures in parentheses are therefore not additive.

MANAGEMENT REQUIREMENTS

The management requirements in this Forest Direction section set the baseline conditions that must be maintained throughout the Forest in carrying out this Forest Plan. They establish the environmental quality requirements, natural and depletable resource requirements, and mitigating measures that apply to all areas of the Forest. Any necessary additions to them are included in the management requirements for the individual management areas. The management requirements listed in the Management Area Direction section are applied in addition to those in this section. Substantive changes which alter the intent of these management requirements may not be made without amending or revising the Forest Plan. Editorial and other minor modifications to these management requirements which do not alter their intent may be made without amending or revising the Forest Plan.

Management requirements are presented in three columns: Management Activities, General Direction Statements, and Standards and Guidelines.

Management Activities are work processes that are conducted to produce, enhance, or maintain levels of outputs, or to achieve administrative and environmental quality objectives. Management Activities are identified by a code number and title defined in the Management Information Handbook (FSH 1309.11) dated July 1980. In some cases, management activities were grouped under one activity when it was not appropriate to develop separate requirements. National Forest System lands will be managed to comply with Laws, Regulations, Executive Orders, direction in the Forest Service Manual, and Regional Acceptable Work Standards.

General Direction Statements specify the actions, measures, or treatments (management practices) to be done when implementing the management activity, or the condition expected to exist after the general direction is implemented.

Standards and Guidelines are quantifications of the acceptable limits within which the general direction is implemented.

Management requirements included in overall Forest Direction are detailed on pages III-11 through III-84. Identification numbers shown in parentheses following each General Direction and Standard and Guideline statement are intended to facilitate future tiering to the Forest Plan and final EIS. Users and reviewers of the Plan will find these identification numbers useful for cross-referencing and identification of mitigation measures.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Maintain structural diversity of vegetation on units of land 5,000 to 20,000 acres in size, or fourth-order watersheds, that are dominated by forested ecosystems. (0061) (FDR)	a. Maintain or establish a minimum of 20 percent of the forested area within a unit to provide vertical diversity. (6030) (FDR) b. Maintain or establish a minimum of 30 percent of the forested area within a unit to provide horizontal diversity. (6031) (FDR) c. In forested areas of a unit, 5 percent or more should be in old-growth and 5 percent or more should be in grass/forb stages. (6032) (FDR) d. In forested units, create or modify created openings so they have a Patton edge- shape index of at least 1.4 and have at least a medium-edge contrast. (6033) (FDR)
	02 Retain existing medium- or high-contrast edges within forested diversity units. (0060) (FDR)	
	03 If medium-contrast edges are created in units dominated by grassland or shrubland, create openings with Patton edge-shape index of at least 1.4. Manage unmanipulated plant communities to reach late seral stages. (0288) (FDR)	a. Maximum size of individual treated areas is 500 acres. (6237) (FDR)
	04 In forested diversity units, maintain at a minimum on each treated area, an average of 20-30 snags (in all stages of development) per 10 acres, well distributed over the diversity unit. (0405) (FDR)	a. Provide at a minimum, an average of 6-10 snags per 10 acres of the following minimum diameters (where biologically feasible): -Ponderosa Pine, Douglas-fir and spruce-fir: 10 inches dbh.

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

-Aspen and Lodgepole pine: 8
inches dbh.
(6021) (FDR)

b. Retain an average length per
acre of down-dead logs (where
biologically feasible) of the
following minimum diameters:

-Ponderosa Pine, Douglas-fir and
spruce-fir - 12 inch diameter
50 linear feet/acre.

-Aspen and
Lodgepole
pine - 10 inch diameter
33 linear feet/acre.
(6022) (FDR)

05 Manage aspen for retention wherever it occurs,
unless justified by one of the following:

- a. Conversion of determinate aspen to conifers, or
shrub-or grass/forb seral stages for wildlife,
esthetic, recreation, transportation, or watershed
purposes.
- b. Conversion of determinate aspen to conifers on
sites with high site index for conifers,
in conjunction with a high demand for softwood; or
- c. Areas of aspen which are larger than are needed for
wildlife or esthetic purposes.

(0286) (FDR)

06 If determinate aspen stands are managed for regen-
eration, treat contiguous areas no larger than 40 acres,
unless larger areas are needed to protect aspen
regeneration or prevent decadence. Treat entire clones.
Indeterminate (climax) aspen stands can be converted
to other cover types if needed to meet other objectives.
(0287) (FDR)

07 Use firewood gathering as a means of obtaining desired
diversities of oakbrush.

(00025J) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Wild and
Scenic River
Management
(F02)

- 01 Protect river segments that have been determined eligible for potential addition to the National Wild and Scenic Rivers system from activities which could diminish or change the free-flowing character, water quality, or the scenic, recreational, fish and wildlife, and other values which make the river eligible for designation.
- a. Request that Federal lands which constitute the bed or bank, or which are within one-quarter mile of either bank, be temporarily withdrawn from appropriation and entry under the mining laws. Withdrawal should continue until the river segment is: a) found to be ineligible b) not recommended for inclusion in the National system, or c) added to the system by Act of Congress.
 - b. Safeguard the values of the river area by appropriate conditions and stipulations in leases, permits, and licenses, including prospecting, issued under terms of the mineral leasing laws.
 - c. Extraction of salable, common-variety minerals from the river or the study area shall not be authorized until the study is complete and recommended actions are enacted.
 - d. Prohibit construction of roads within the river study area if it would have direct and adverse effects on the values which make the river eligible for potential inclusion into the system.
 - e. Maintain current motorized access character and avoid any changes to the potential wild and scenic river classification.
 - f. Maintain free-flowing characteristics and water quality during the study and Congressional review period.
 - g. Manage tree stands within the study area to maintain or enhance potential wild and scenic river values. Protect scenic values by sizing and shaping timber harvest units to achieve a natural appearance and to harmonize with the surrounding landscape.
 - h. Prohibit special uses or permitted land uses which degrade or have directly adverse effects on values

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wild and
Scenic River
Management
(F02)

which make the river segment eligible.

- i. None of this direction shall abrogate any existing privileges or contracts affecting National Forest System lands held by any private party without consent of said party. Activities affecting the applicability of U.S. mining and mineral leasing laws are subject to valid existing rights.
(0004) (FDR)

Cultural
Resource
Management
(A02)

01 Protect, find an adaptive use for, or interpret all cultural resources on National Forest System (NFS) lands which are listed on the National Register of Historic Places, the National Register of Historic Landmarks, or have been determined to be eligible for the National Registers.
(0039) (FDR)

a. Follow direction in
FSM 2360.
(6310) (FDR)

02 Nominate or recommend cultural resource sites to the National Register of Historic Places by 1990 in the following priority:

- a. Sites representing multiple themes;
- b. Sites representing themes which are not currently on the National Register within the State; or
- c. Sites representing themes which are currently represented by single sites.
(0045) (FDR)

III-14

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Cultural
Resource
Management
(A02)

- 03 Protect and foster public use and enjoyment of cultural resources:
- a) Complete cultural resource surveys prior to any ground-disturbing project;
 - b) Avoid disturbance of known cultural resources until evaluated and determined not significant;
 - c) Collect and record information from sites where there is no other way to protect the properties;
 - d) Issue antiquities permits to qualifying academic institutions or other organizations for the study and research of sites.
 - e) Protect appropriate cultural resource properties for ceremonial/religious or other socio-cultural purposes by Native Americans and other cultural/ethnic groups.

(0501SJ) (FDR)

Visual Resource
Management
(A04)

- 01 Apply the Visual Management System to all National Forest System (NFS) lands.
- Travel routes, use areas and water bodies determined to be of primary importance are sensitivity level 1 and appropriate visual quality objectives are established according to the Visual Management System.
- (0360) (FDR)

- a. Follow direction provided in FSM 2380 and FSH 2309.16 through FSH 2309.25.
- (6205) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Visual Resource
Management
(A04)

02 Rehabilitate all existing projects and areas which do not meet the adopted visual quality objective(s) (VQO) specified for each management area. Set priorities for rehabilitation, considering the following:

- a. Relative importance of the area and the amount of deviation from the adopted VQO. Foreground areas have highest priority;
- b. Length of time it will take natural processes to reduce the visual impacts so that they meet the adopted VQO;
- c. Length of time it will take rehabilitation measures to meet the adopted VQO; and
- d. Benefits to other resource management objectives to accomplish rehabilitation.
(0363) (FDR)

03 Achieve enhancement of landscapes through addition, subtraction or alteration of elements of the landscape such as vegetation, rockform, water features or structures. Examples of these include:

- a. Addition of vegetation species to introduce unique form, color or texture to existing vegetation
- b. Vegetation manipulation to open up vistas or screen out undesirable views.
(0364) (FDR)

04 Plan, design and locate vegetation manipulation in a scale which retains the color and texture of the characteristic landscape, borrowing directional emphasis of form and line from natural features.

(0365) (FDR)

a. Meet the Visual Quality Objectives of retention and partial retention one full growing season after completion of a project. Meet modification and maximum modification objectives three full growing seasons after completion of a project.
(6259) (FDR)

b. Determine sensitivity levels in accordance with FSH 2309.16, Agriculture Handbook No. 462,

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Visual Resource
Management
(A04)

Vol. 2, Chapter 1: Sensitivity
Levels.
(6272) (FDR)

05 Blend soil disturbance into natural topography
to achieve a natural appearance, reduce erosion and
rehabilitate ground cover.
(0366) (FDR)

06 Revegetate disturbed soils. In large projects,
this may have to be done in stages.
(0456) (FDR)

a. Revegetate disturbed soils by
the following growing season.
(6276) (FDR)

07 Choose facility and structure design, color of
materials, location and orientation to meet the
adopted visual quality objective(s) for the
management area.
(0367) (FDR)

Recreation Site
Construction and
Rehabilitation
(A05 AND 06)

01 Provide appropriate development facilities where
the private sector is not meeting the demand.
(0441) (FDR)

02 Maintain cost-effective developed recreation
facilities which complement non-Forest Service
developments.
(0442) (FDR)

03 Provide facilities which are accessible to
handicapped persons.
(0443) (FDR)

04 Facilities proposed for construction or
reconstruction which lie within identified 100-
year floodplains will be evaluated as to the
specific flood hazards and values involved with
the site. Viable alternatives will be thoroughly
evaluated.
(0728) (FDR)

a. Follow procedures and
guidelines in FSM 2527.04c.
(6632) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Recreation Site
Construction and
Rehabilitation
(A05 AND 06)

05 Past and probable flood heights in inventoried
100-year floodplains will be posted to provide visible
warnings to the using public about possible periodic
flooding.
(0730) (FDR)

a. Follow procedures and
guidelines in FSM 2527.6.
(6634) (FDR)

Management of
Developed
Recreation Sites
(A08, 09, 11 &
13)

01 Design, construct and operate developed sites
which are adjacent to or provide an access point
into a wilderness to complement wilderness management
objectives.
(0350) (FDR)

02 Construct, reconstruct and maintain developed
sites in accordance with the established Recreation
Opportunity Spectrum (ROS) classification for the
management area.
(0348) (FDR)

a. Standards and Guidelines

Site Development	
ROS Class*	Scale
P	Not to exceed 1
SPNM	Not to exceed 2
SPM	Not to exceed 2
RN	Class 3 or 4
R	Class 3 or 4
U	Class 5

* P = Primitive
SPNM = Semi-primitive non-
motorized
SPM = Semi-primitive
motorized
RN = Roaded Natural
R = Rural
U = Urban
FSM 2331.47
(6193) (FDR)

81-III

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Management of
Developed
Recreation Sites
(A08, 09, 11 &
13)

03 Manage development scale 3 and 4 sites for
full service when at least one of the following
are met:

- a. A campground is designated as a fee site;
- b. More than 20 percent of theoretical capacity
is being utilized;
- c. A group campground or picnic ground has a
reservation system and/or user fee; or
- d. The site is a swimming site, a boating site
with a constructed ramp, or a staffed visitor
information center.

(0349) (FDR)

a. FSM 2331.47
(6652) (FDR)

Dispersed
Recreation
Management
(A14 and 15)

01 Provide a broad spectrum of dispersed recreation
opportunities in accordance with the established
Recreation Opportunity Spectrum (ROS) classification
for the management area.

(0351) (FDR)

02 Close or rehabilitate dispersed sites where
unacceptable environmental damage is occurring.

(0040) (FDR)

a. Close sites that cannot be
maintained in Frissell Condition
Class 1, 2, or 3 (Campsite Condi-
tion, Frissell, S.S.; Journal of
Forestry August 1978).

(6023) (FDR)

b. Rehabilitate sites that
are in Frissell condition
class 4.

(6197) (FDR)

03 Manage dispersed recreation activities to not exceed
the established ROS PAOT/acre capacity.

Manage use of trails in dispersed areas to not
exceed the established PAOT/mile of trail guidelines.

(0352) (FDR)

a. Standards and Guidelines:

Recreation use and capacity
range during the snow-free
period (PAOT/acre):

Trail use and capacity range
(PAOT/mile of trail):

Capacity Range

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

Use Level	Very Low	Low	Mod- erate	High
RDS class - Primitive				
On Trails PAOT/Mile	0.5	1.0	2.0	3.0
Area wide PAOT/acre .001 .002 .007 .025				
RDS Class - Semi-Primitive Nonmotorized				
On Trails PAOT/mile	2.0	3.0	9.0	11.0
Area-wide PAOT/acre .004 .008 .05 .08				
RDS Class - Semi-Primitive Motorized				
On Trails PAOT/mile	2.0	3.0	9.0	11.0
Area-wide PAOT/acre .004 .008 .05 .08				
RDS Class - Roaded Natural				
On Trails PAOT/mile	-	-	-	-
Area-wide PAOT/acre .04 .08 1.2 2.5				
RDS Class - Rural				
On Trails PAOT/mile	-	-	-	-
Area-wide PAOT/acre .5 .8 5.0 7.5				

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the bio-physical resources will occur.

* VERY LOW applies to alpine.
LOW applies to rock, mtn. grass, and clearcuts 1-20 years old.

MODERATE applies to LP size class 9, mtn. grass, PP size class 9, 8 and 7, DF size class 9, 8 and 7, Aspen size class 9, SF size class 7, shelterwood cuts 90-120 years old, selection cuts 1-20 years old and clearcuts 80-120 years old.

HIGH applies to SF size class 9 and 8, LP size class 8 and 7, Aspen size class 8 and 7 and clearcuts 20-80 years old.
(6195) (FDR)

04 Prohibit camping within a minimum of 100 feet from lakes and streams unless exceptions are justified by terrain or specific design which protects the riparian and aquatic ecosystems.
(0353) (FDR)

05 Manage resource activities and facilities in accordance with the Regional Acceptable Work Standards.
(0391) (FDR)

a. FSM 1310 R2 ID No.1 7/22/82
(6194) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Ensure that permitted private and public sector sites on Forest Service lands which are adjacent to, or provide an access point into, a wilderness complement wilderness management objectives.
(0457) (FDR)

Wilderness Area
Management
(B02)

01 Do not provide interpretive facilities at cultural resources sites, nor restore or enhance cultural resources for recreation purposes.
(0172) (FDR)

02 Provide opportunities for human isolation, solitude, self-reliance and challenge while traveling cross-country and on system trails.
(0191) (FDR)

03 Utilize a permit system to manage use levels and patterns during the summer use period based upon the following criteria:

- a. When acceptable use levels, as specified in the individual prescriptions, are exceeded during 20 percent of the summer use season, or
- b. When acceptable capacities, as specified in the individual prescriptions, in primitive or pristine management areas are exceeded on 10 percent or more of the days during the summer use season.
- c. Apply a permit system to an entire wilderness, not just impacted portions of a wilderness.
(0192) (FDR)

04 Do not impose party-size limits during traditionally light-use seasons or during fall hunting seasons unless necessary to prevent unacceptable levels of change to the biological and physical resources.
(0193) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wilderness Area
Management
(B02)

05 Maximum party-size limit for the summer use period is 25 people and/or recreational stock. Party size limits less than 25 people and/or recreational stock will be established where biological and physical resource capability cannot support that level of use. Party sizes established for protection of biophysical resources will set limits for both people and recreational stock. Parties larger than established limits may be allowed under permit on a case-by-case basis when compatible with other wilderness management objectives.

(0194) (FDR)

06 Prohibit competitive contest events, group demonstrations, ceremonies, and other similar events.

(0209) (FDR)

07 Prohibit dogs, or require them to be physically controlled on a leash. Exceptions will be made for permittee's working dogs, and for hunting dogs while hunting during legal seasons.

(0202) (FDR)

08 Prohibit recreational stock along lake shores and streambanks except for watering and through-travel.

(0204) (FDR)

09 Require users camping overnight with recreational stock to carry cubed, pelleted, or rolled feed and/or certified weed-free hay where grazing is prohibited.

(0176) (FDR)

10 Control overnight grazing of recreational stock in alpine and Krummholz ecosystems according to use standards in Management Activity D02, Forest Direction.

(0206) (FDR)

a. Base range condition on the standards in Range Analysis Handbook (FSH 2209.21).
(6156) (FDR)

b. Allowable soil disturbance criteria:

20% maximum disturbance on ranges with good-excellent soil stability condition on 0-15% slopes.

15% maximum disturbance on ranges with fair soil stability conditions on slopes less than 15% and good

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wilderness Area
Management
(B02)

or better soil stability conditions on slopes of 16-25%

10% maximum disturbance on ranges with fair soil stability conditions on slopes of 16-25%, and good soil stability conditions on slopes of 26-45%.
(6280) (FDR)

11 Prohibit new range improvement structures other than corrals, fences or water developments essential to sustain current permitted numbers.
(0221) (FDR)

12 Implement revegetation only for rehabilitation of areas in less than "fair" range condition based upon their natural potential. Use only native species for revegetation. Implement only where natural vegetation possibilities are poor, and only where degradation was due to human activities.
(0177) (FDR)

a. Base range condition on the standards in Range Analysis Handbook (FSH 2209.21).
(6156) (FDR)

13 Permit fish and wildlife research and management utilizing guidelines adopted by the International Association of Fish and Wildlife Agencies (FSM 2323.3).
(0179) (FDR)

14 See Mining Law Compliance and Administration and Minerals Management Activities in Forest Direction for minerals direction.
(0476) (FDR)

15 Maintain or enhance the uniqueness and values of the wilderness resource using prescribed fires originating from unplanned ignitions except when wildfires threaten human life, lands of other ownership, downstream values, off-site resources, or escape from the wilderness.

(10045J) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wilderness Area
Management
(B02)

16 Confine, contain, or control wildfires which threaten human life, lands of other ownership, off-site resources, downstream values, escape from the wilderness, or are not being managed as prescribed.

(1005SJ) (FDR)

a. Suppression action will be taken on natural fires occurring in the Florida River Municipal Watershed Fire Management Unit to restrict fire size to less than 250 acres.

(6801SJ) (FDR)

17 Use methods and equipment in fire suppression which will least alter the landscape or disturb the land surface. Utilize natural barriers such as vegetation type changes and non-combustible land features to restrict wildfire spread.

(1006SJ) (FDR)

18 Dozers may be used within wilderness when there is imminent threat to human life, property of other ownership, or to escape from the wilderness. Any other use of dozers for fire control must be approved by the Regional Forester.

(1007SJ) (FDR)

19 Locate fire camps outside wilderness when practical. If located within wilderness, avoid the alpine zone.

(1008SJ) (FDR)

20 Reclaim areas disturbed as part of fire control activities to meet the visual quality objective of retention.

(1009SJ) (FDR)

21 Protect air quality related values from adverse effects from air pollution.

(0188) (FDR)

a. See criteria and standards in FSM 2120.

(6286) (FDR)

22 Control natural insect or disease outbreaks in wilderness only when justified by predicted loss of resource values outside of wilderness. Conduct analysis in accordance with FSM 3430.

(0190) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wilderness Area
Management
(B02)

23 Control problem animals on a case-by-case basis in cooperation with other agencies (FSM 2610) using methods directed at the offending animal but which present the least risk to other wildlife, and/or visitors.
(0180) (FDR)

Wildlife and
Fish Resource
Management
(G01)

01 Where present, the following species are Management Indicator Species:

-Deer;
-Elk; and
-All Federally-listed endangered or threatened plant and animal species.
(0458) (FDR)

02 In addition to the above, use indicator species that represent the following categories:

- a. Riparian area dependent species;
- b. Wetland dependent species;
- c. Species dependent on either climax plant communities or one seral stage of a plant community or communities (forested land and rangeland);
- d. Tree cavity-dependent species;
- e. Game fish;
- f. Unique habitats for which there are dependent species (cliff, talus, cave);
- g. Small game species;
- h. Species dependent on multi-storied tree stands by commercial forest cover type; and
- i. Species which have particular scientific, local, or national interest, and species needing special management to prevent Federal listing as threatened or endangered.
(0459) (FDR)

03 Maintain habitat for viable populations of all existing vertebrate wildlife species.
(0289) (FDR)

a. Habitat for each species on the forest will be maintained at least at 40 percent or more of potential.
(6289) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife and
Fish Resource
Management
(G01)

04 Establish elk, moose, bighorn sheep, and threatened and endangered species on sites that can supply the habitat needs of the species and the population levels and distribution agreed to with the States (FSM 2610).
(0461) (FDR)

05 Manage waters capable of supporting self-sustaining trout populations to provide for those populations.
(0290) (FDR)

06 Manage and provide habitat for recovery of endangered and threatened species as specified in the Regional Forester's 1920 (2670) letter dated June 25, 1982.
(0740) (FDR)

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

01 Use both commercial and noncommercial silvicultural practices to accomplish wildlife habitat objectives.
(0051) (FDR)

a. In forested areas, maintain deer or elk hiding cover on 60 percent or more of the perimeter of all natural openings, all created openings and along at least 75 percent of the edge of arterial and collector roads and 40 percent along streams and rivers. Not more than one half of the hiding cover can be contiguous to another portion of the hiding cover. Along streams and rivers in addition to hiding cover, 20 percent or more of the edge must be in thermal cover.
(6188) (FDR)

b. In diversity units dominated by forested ecosystems, maintain a minimum of 40 percent of the diversity unit in deer or elk hiding cover. This hiding cover should be well distributed over the unit. Maintain 20 percent of the diversity unit in thermal cover (winter or spring-summer). Hiding cover can be used to meet thermal cover requirements also, if they indeed coincide biolog-

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

ically.
(6312) (FDR)

c. In diversity units domi-
nated by non-forested eco-
systems, maintain deer and
elk hiding cover as follows:

% of Unit Forested	% of Forested Area In Cover
35-50	at least 50%
20-34	at least 60%
less than 20	at least 75%

These levels may be exceeded
temporarily during periods
when stands are being re-
generated to meet the cover
standard, or to correct tree
disease problems, in aspen
stands, or where windthrow or
wildfire occurred. Maintain
hiding cover along at least 75
percent of the edge of arterial
and collector roads, and at
least 60 percent along streams
and rivers, where trees occur.
(6660) (FDR)

d. Alter⁺ age classes of browse
stands in a diversity unit, no more
than 25 percent within a ten-year
period.
(6146) (FDR)

02 Improve habitat capability through direct treatments
of vegetation, soil, and waters.
(0337) (FDR)

03 Conduct habitat improvement projects jointly or
cooperatively funded with the States.
(0339) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(C02, 04, 05
and 06)

04 Maintain edge contrast of at least medium or high
between tree stands created by even-aged management.
(0448) (FDR)

a. Contrast by Age Class is:

Contrast									
Age				S			S		
Class*	O			S	G	h	r		
	G	M	P	S	F	r	a		
OG	-	L	M	H	H	M	H		
M	L	-	M	M	H	M	H		
P	M	M	-	M	H	M	H		
SSS	H	M	M	-	L	L	L		
GF	H	H	H	L	-	M	L		
Shr	M	M	M	L	M	-	M		
Gra	H	H	H	L	L	M	-		

* OG = Old Growth
M = Mature
P = Poles
SSS = Shrub-seedling-
sapling
GF = Grass-forb
Shr = Shrubland
Gra = Grassland

H = High contrast
M = Medium contrast
L = Low contrast
(6265) (FDR)

Wildlife and
Fish Cooperation
With Other
Agencies
(G12)

01 Manage animal damage in cooperation with the State
Wildlife Agencies, Fish and Wildlife Service, other appro-
priate agencies, and cooperators to prevent or reduce
damage to other resources and direct control toward
preventing damage or removing only the offending animal.
(0097) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife and
Fish Cooperation
With Other
Agencies
(G12)

02 Allow denning or aerial gunning only for the purpose of animal damage control and under the following conditions:

- a. Methods are specified in the Forest Animal Control Plan;
 - b. Denning and aerial gunning is done by an authorized individual; and
 - c. The permit is issued by the State for aerial gunning.
- (0098) (FDR)

Range Resource
Management
(D02)

01 Provide forage to sustain local dependent livestock industry as well as wildlife populations agreed to in Statewide Comprehensive Wildlife Management Plans for National Forest System lands.

(0055) (FDR)

02 Remove livestock for the remainder of the grazing season from allotments managed under a continuous grazing system when further utilization on key areas will exceed allowable use criteria for the season.

(0057) (FDR)

03 Manage livestock and wild herbivores forage use by implementing allowable use guides.

(0058) (FDR)

a. Livestock and wild herbivores allowable forage use by grazing system and range type are:

1. Rest Rotation System:

a. Use by range type:

-Mainly seed Reproduction:

(Bunchgrass, plains grass-land, foothills shrub and alpine range types):

50-60 percent on heavy use pastures.

Up to 45 percent on light use pastures.

-Mainly vegetation reproduction (meadow, sandhill prairie, bluegrass bottoms, and aspen range types):

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

Bluegrass: maximum up to
80 percent; others, 55-65
percent on heavy use
pastures, 40-50 percent
on light use pastures.

-Wild herbivores use during
spring in rest-pastures
will not exceed 25%.

- b. Allowable soil disturbance
or recovery criteria:

Soil and vegetation condi-
tion must be restored to
at least the pre-treatment
condition by the return
to the same point in the
grazing cycle.

2. Deferred Rotation System:

- a. Use by range type:

-Mainly seed Reproduction:

40-50 percent on all
pastures.

-Mainly vegetation reproduc-
tion:

45-55 percent on all
pastures.

- b. Allowable soil disturbance
or recovery criteria:

Soil and vegetation condi-
tions must be restored to
at least the pre-treatment
condition by the return
to the same point in the
grazing cycle.

3. Rotation System:

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

a. Use by range type:

-Mainly seed Reproduction:

Max. of 50 percent on last
used pastures;

Max. of 40 percent on first
used pasture.

-Mainly vegetation reproduc-
tion:

Max. of 55 percent on last
used pasture.

Max. of 45 percent on first
used pasture.

b. Allowable soil disturbance
or recovery criteria:

Same as deferred rotation
system above.

4. Continuous System (Grazing same
time and place every year):

-Mainly seed Reproduction:

Season	Use by Condition Class on Key Area			
	Good and Excellent	Fair	Poor	Very Poor
Full Grazing Season or Spring	31- 40%	21- 30%	11- 20%	0- 10%
Summer	36- 45%	26- 35%	11- 25%	0- 10%
Fall	46-	31-	16-	0-

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

and/or 55% 45% 30% 15%
Winter

-Mainly vegetation reproduction:

Same as primary seed reproduc-
tion except increase utiliza-
tion by 10% on bluegrass.

Allowable soil disturbance:

20% maximum disturbance on
ranges with good-excellent soil
stability condition on 0-15%
slopes.

15% maximum disturbance on
ranges with fair soil stability
condition on less than 15%
slopes, and on good or better
soil stability condition on
16-25% slopes.

10% maximum disturbance on
ranges with fair soil stability
condition on 16-25% slopes,
and good or better soil
stability condition on 26-
45% slopes.

5. Alternate Years System:

a. Use by range type on key
areas:

-Mainly seed Reproduction:

Condition Class	Use
on Key Area	
Good-Excellent	51-60%
Fair	36-50%
Poor	21-35%
Very Poor	0-20%

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

-Mainly vegetation reproduc-
tion:

Condition Class on Key Area	Use
Good-Excellent	56-65%
Fair	41-55%
Poor	31-40%
Very Poor	0-30%

Bluegrass 80% on good or
better condition and same
proper use percent for fair
and lower as above.

Soil disturbance criteria
is same as for continuous
grazing.

(6041) (FDR)

04 Achieve or maintain satisfactory range conditions
on all rangelands.
(0499) (FDR)

05 Treat noxious farm weeds in the following priority:

- a. Leafy spurge and Russian and spotted knapweed;
 - b. Invasion of new plant species classified as noxious
farm weeds;
 - c. Infestation in new areas;
 - d. Expansion of existing infestations of Canada and musk
thistle, and other noxious farm weeds; and
 - e. Reduce acreage of current infestation.
- (0096) (FDR)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Structural range improvement should be designed
to benefit wildlife and livestock.
(0416) (FDR)

a. Structural improvements and
maintenance will be in accordance
with FSH 2209, 22-R2.
(6277) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Provide for wildlife habitat improvement and enhance-
ment of other renewable resources in Sale Area Improvement
Plans.

(0014) (FDR)

02 Apply a variety of silvicultural systems and harvest
methods which best meet resource management objectives.

(0016) (FDR)

a. The appropriate harvest methods
by forest cover type are:

		: Appropriate	
		: Harvest Methods*	
		: - - - - -	
Forest Cover	: Even-	: Uneven-	
Type	: aged	: aged	
Interior	:	:	
Ponderosa Pine	: SW, CC&S	: GS & ST	
Mixed Conifer	*: SW & CC	: GS	
Aspen	: CC	: --	
Lodgepole pine	: SW & CC	: GS	
Engelmann spruce-	:	:	
Subalpine fir	: SW & CC	: GS & ST	

* The following abbreviations are
used for harvest methods:

SW = Shelterwood
CC = Clearcut
GS = Group Selection
ST = Single Tree Selection
S = Seed Tree

Ponderosa pine sites which are
presently non-stocked or above
30 percent slope are considered
unsuitable for timber produc-
tion because of regeneration
difficulties. This determina-
tion does not apply to stands
on slopes less than 30 percent
which may become "non-stocked"
in the future through manage-
ment prescribed or natural
means such as fire.

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

When a harvest method other than shelterwood is used in interior ponderosa pine, remove trees in units less than one acre in size.

* Mixed Conifer includes Interior Douglas fir and white fir forest cover types.

(8001SJ) (FDR)

b. Utilization standards by National Forest for live and dead material are:

Species	Min.		%Net	
	Min. DBH	Top Length of Dia. (Feet)	Length of Gross	
Live Trees - All Periods				
Sawtimber				
Conifers	7.0	6.0	8	33-1/3
Aspen	7.0	6.0	8	33-1/3
Products Other than Sawtimber	5.0	4.0	6-1/2	--
Dead Trees - All Periods				
Sawtimber				
Conifers	8.0	6.0	16	33-1/3*
Products Other than Sawtimber	5.0	4.0	Variable	

* Considering all defects except weather checking. Prominent checks or splits are considered defects.

(8002SJ) (FDR)

c. Silvicultural Standards by Harvest Method: (These standards do not apply on areas managed for old

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

growth)

1) Clearcut:

Forest Cover Type	Rotation Age	Growing Stock Level	Thinning Cycle
Mixed Conifer	100 to 180 yrs.	80 to 150	20 to 40 yrs.
Spruce- fir	100 to 180 yrs.	80 to 180	20 to 40 yrs.
Lodgepole Pine	50 to 100 yrs.	80 to 120	10 to 30 yrs.
Aspen	75 to 120 yrs.	NA	NA
Other	100 to 180 yrs.	80 to 120	20 to 40 yrs.

2) Two-step shelterwood:

Forest Cover Type	Rotation Age	Growing Stock Level	Thinning Cycle
PP, MC, and SF	50 to 180 yrs.	70 to 160	20 to 40 yrs.
Lodgepole pine	90 to 140 yrs.	80 to 120	20 to 30 yrs.
Other	70 or more yrs.	60 to 120	20 to 30 yrs.

First Cut (seed cut):

Remove 30 to 70 percent of
the Basal area or cut to
Basal area (BA)
BA 25-80 for Interior
Ponderosa Pine,

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Mixed Conifer,
and Spruce-fir
BA 20-40 for Lodgepole
pine
BA 20-60 for other
forest cover
types

Second Cut (removal cut):
Remove all overstory when
regenerated stand meets
minimum stocking standards.

3) Three-step shelterwood:

Rotation age, growing stock
level and cutting cycle is the
same as two-step shelterwood.

First Cut (preparatory cut):
Remove 10 to 40 percent of the
basal area or,

Cut to BA 60-80 for Interior
Ponderosa Pine, Mixed Conifer,
and Lodgepole Pine,

Cut to BA 50-80 for all other
forest cover types.

Second Cut (seed cut):
Remove 40 to 50 percent of the
remaining basal area or

Cut to BA 40-80, 10 to 20 years
after preparatory cut
for Interior Ponderosa
pine, Mixed conifer,
and Spruce-fir;

BA 20-40, 10 to 20 years
after preparatory cut for
Lodgepole pine:

BA 20-50, 10 to 20 years

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

after preparatory cut for
other species.

Third Cut (removal cut):
Remove all overstory when re-
generated stand meets minimum
stocking standards.

4) Selection:

Forest Cover Type	Residual BA	Thinning Cycle
SF and MC	80 to 180	20 to 40 yrs.
Other	80 to 120	20 to 30 yrs.
(80035J)	(FDR)	

d. To facilitate the control of
soil erosion within acceptable
tolerance:

- 1) Permit conventional logging
equipment on slopes of less than
20 percent in shale capability
areas and on slopes of less than
25 percent in hard sediment cap-
ability areas that have less
than 20 percent coarse fragments
(gravel, cobble, stone) where
soil surveys or site-specific
soil data are unavailable.
- 2) Allow conventional logging
equipment on slopes up to 40
percent where soil survey or
site-specific soil data are
available to design erosion
mitigation needs.
- 3) Utilize high flotation equipment
on slopes up to 60 percent or

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

cable and aerial systems on any slope.

- 4) For the named and correlated soils within the Piedra soil survey area, the following will apply:

- Limit conventional logging equipment to slopes less than 30 percent on the following soil types:

Adel loams, Grenadier loams, Muggins loams, Nunn loams and Pescar loams.

- Limit conventional logging equipment to slopes less than 25 percent on the following soil types:

Carracas loams, Coni sandy loams, Corta silt loams, Dunton loams, Greenough loams, Heflin loams, Hunchback clay loams, Juey silt loams, Limber loams, Mayoworth silt loams, Miracle loamy fine sands, Molas⁴loams, Vasquez loams, Winifred clays and Woodrock silt loams.

The above restrictions may be modified on the basis of more site specific soils information.

(8004SJ) (FDR)

03 Clearcuts may be applied to dwarf mistletoe infected stands of any forest cover type.
(0138) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

04 Assure that all even-aged stands scheduled to be harvested during the planning period will generally have reached the culmination of mean annual increment of growth.
(0453) (FDR)

05 The maximum size of openings created by the application of even-aged silviculture will be 40 acres regardless of forest cover type. Exceptions are:

- a. Proposals for larger openings are subject to a 60-day public review and are approved by the Regional Forester;
- b. Larger openings are the result of natural catastrophic conditions of fire, insect or disease attack, windstorm; or
- c. The area does not meet the definition of created openings.

(0017) (FDR)

06 Design clearcuts to enhance natural regeneration.

(2507SJ) (FDR)

a. Size of openings:

Patch clearcuts: 1-10 acres
Clearcuts : 10-40 acres
(6073) (FDR)

a. Optimum clearcut size and design standards by forest cover types except for dwarf mistletoe infected stands:

- Interior Ponderosa-Pine: Patch clearcut in units not exceeding one acre in size.
- Mixed Conifer and Engelmann Spruce-Subalpine-Fir: Patch clearcut in units below 10 acres in size and no more than 400 feet in width for seed dispersal.
- Aspen: Clearcut in blocks up to 40 acres.

(8007SJ) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

07 Acceptable management intensity activities to determine
harvest levels are:

Management Activity*	Engel- mann Spruce- Subal- pine Fir	Interior Ponderosa Pine	Lodge- Pole Pine	Interior Douglas- Fir and White Fir	As- pen	Other Pines	Hard- woods
Tree Improvement	X	X	X	N	N	N	X
Site Preparation	X	X	X	X	N	N	X
Reforestation							
Planting	X	X	X	X	O	N	X
Seeding	O	X	N	O	O	O	X
Natural Regeneration	X	X	X	X	X	X	X
Protection	X	X	X	X	N	N	X
Stocking Control (thinning):							
Pre- Commercial	X	X	X	X	O	X	X
Commercial	X	X	X	X	O	X	X
Salvage of Dead Material	X	X	X	X	X	N	X
Cutting Methods:							
Clearcut	X	X	X	X	X	N	X
Shelterwood	X	X	N	X	O	N	X
Selection	X	X	N	X	O	X	X

*Various combinations of these activities provide the
acceptable range of management intensity for timber pro-
duction (36 CFR 291.2(b)(2)).

X = Appropriate practice.

O = Not an appropriate practice.

N = Appropriate, but not a standard practice.

May be acceptable where justified.

(0019) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

08 Make Christmas trees, firewood and other roundwood products available in areas where other resource objectives can be accomplished through commercial sales or personal use.

(2502SJ) (FDR)

Reforestation
(E04)

01 Establish a satisfactory stand on cutover areas, emphasizing natural regeneration within five years after final harvest except:

- a. For permanent openings that serve specific management objectives;
- b. When other resource objectives dictate a different period such as spruce-fir clearcuts where planting must occur within three years after harvest;
- c. In those lodgepole pine stands where the period for natural regeneration should be extended up to seven years after clearcutting; and
- d. When provided for otherwise in specific management prescriptions.

(0013) (FDR)

a. Establish a seven-year regeneration period for lodgepole pine stands meeting the following criteria:

- (1) Natural regeneration is expected to provide satisfactory stocking within 7 years after cutting,
- (2) Establishment of trees is not impaired by competing vegetation, and
- (3) Maintenance of favorable site condition does not require additional site preparation.

(6005) (FDR)

b. Minimum stocking standards by productivity and forest cover type.

Forest Cover Type	Site Prod. (Ft. 3/A/ Yr.)	Planting* Densities (Trees/A)
Spruce- fir	85+ 50-84 20-49	340-1000 340-1000 340-1000
Aspen	All	---
Mixed Conifer	85+ 50-84 20-49	340-680 340-680 340-680
Lodgepole Pine	85+ 50-84 20-49	360-680 360-540 300

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Reforestation
(E04)

Ponderosa	85+	680-1000	
Pine	50-84	680-1000	
	20-49	680-1000	
Forest Site Prod. Seedling Stocking			
Gover (Ft. 3/A. /Acre			
Type Yr.) Min. Desir. *			
Spruce-	85+	200	340
Fir	50-84	200	280
	20-49	150	155
Aspen	All	300	600
Mixed	85+	205	310
Gonifer	50-84	205	255
	20-49	190	240
Lodgepole	85+	245	340
Pine	50-84	200	280
	20-49	150	250
Ponderosa	85+	205	310
Pine	50-84	205	255
	20-49	190	240
Forest Site Prod. or Transects			
Gover (Ft. 3/A. That are Stocked			
Type Yr.) Minimum Desired			
Spruce-			
fir	All	75	100
Aspen	All	75	100
Mixed			
Gonifer	All	75	100
Lodgepole	All	75	100
Pine			
Ponderosa			
Pine	All	70	100
Forest cover			
		Seedling Height	

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Reforestation
(E04)

type	(inches)	
	Minimum	Desired
Spruce-fir	3"	18"
Aspen	12"	45"
Mixed Conifer	3"	18"
Lodgepole Pine	3"	18"
Ponderosa Pine	3"	18"

* Lower densities are recommended to meet minimum stocking standards. Higher densities are recommended to meet desired stocking standards, with ample stock for selecting genetically superior trees.
Minimum stocking standards are to be used where no precommercial cutting will be done, and only one harvest will be made to regenerate the stand.
* Desired stocking standards are to be used where at least one precommercial cut will be done followed by two sawlog harvests before the final cut is done. (Aspen will have only one final cut.)

(B005SJ) (FDR)

02 Do not apply final shelterwood removal cut until the desired number (as specified in Minimum Stocking Standards) of well-established seedling/acre are expected to remain following overwood removal.
(0142) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Reforestation
(E04)

03 Use trees of the best genetic quality available which are adapted to the planting site when supplemental planting. (Reference FSM 2475)
(0141) (FDR)

Timber Stand
Improvement
(E05)

01 Utilize Christmas tree, firewood, and other roundwood opportunities through commercial sales and personal use to accomplish stocking controls.

(2505SJ) (FDR)

Riparian
Area
Management
(F03)

01 Also see Management Prescription 9A for riparian area management.
(0404) (FDR)

02 Design and implement activities in management areas to protect and manage the riparian ecosystem.
(0401) (FDR)

a. Maintain all riparian ecosystems in at least an upper mid-seral successional stage based upon the R2 Riparian Ecosystem Rating System.
(6147) (FDR)

03 Manage riparian areas to reach the latest seral stage possible within the stated objectives.
(0402) (FDR)

04 Prescribe silvicultural and livestock grazing systems to achieve riparian area objectives.
(0403) (FDR)

05 Locate and construct arterial and collector roads to maintain the basic natural condition and character of riparian areas.
(0087) (FDR)

06 Incorporate structures which provide for fish passage in all new roads and trails crossing perennial streams which support a fishery.

(3001SJ) (FDR)

FOREST DIRECTION

97-III

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Water Uses
Management
(F04)

01 Determine and obtain rights to instream flow volumes to protect and maintain stream channel stability and capacity and to accomplish any proposed increase in use or resource activity.
(0009) (FDR)

02 Protect water right applications of others when such uses will lower streamflows below levels acceptable for National Forest uses and purposes.
(0602) (FDR)

03 Special Use Permits, easements, rights-of-way, and similar authorizations for use of NFS lands shall contain conditions and stipulations to maintain instream or by-pass flows necessary to fulfill all National Forest uses and purposes.
(0604) (FDR)

Water Resource
Improvement and
Maintenance
(F05 and 06)

01 Maintain instream flows and protect public property and resources.
(0010) (FDR)

02 Improve or maintain water quality to meet State water quality standards. However, where the natural background water pollutants cause degradation, it is not necessary to implement improvement actions. Short-term or temporary failure to meet some parameters of the State standard, such as increased sediment from road crossing construction or water resource development may be permitted in special cases.
(0005) (FDR)

03 Develop a schedule of water yield treatments within fourth-order watersheds which attains desired water yield increases while maintaining stream channel stability.
(0606) (FDR)

a. Provide mitigation measures necessary to prevent increased sediment yields from exceeding "threshold limits" (as determined by "State of the Art" modeling ^HYSED; or actual measurements) identified for each (fourth-order) watershed.
(6320) (FDR)

b. The total percent of each fourth-order watershed that could

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Water Resource
Improvement and
Maintenance
(F05 and O6)

be in a clearcut condition, including roads, is shown below in terms of the perennial stream riparian capability area type (see Planning Criteria, Planning Action Two for definitions) at the mouth of the major stream or streams in the watershed.

Riparian Capability Area Types	Percent Clear- Cut
-----------------------------------	--------------------------

H3N, 12N, 13N, E2M, E2N, E3N	35
M2N, H1M, H1N, H2M, H2N, I1N	25
M1M, M1M, M1N, S1N, S3N, E1M	20
S1M, S2N	15

The above restrictions may be modified on the basis of more detailed analyses of specific watersheds.

(B401SJ) (FDR)

04 Rehabilitate disturbed areas that are contributing sediment directly to perennial streams as a result of management activities to maintain water quality and re-establish vegetation cover.
(0676) (FDR)

a. Reduce to natural rate any erosion due to management activity in the season of disturbance and sediment yields within one year of the activity through necessary mitigation measures such as water-barring and revegetation.
(6606) (FDR)

05 Limit use of herbicides, insecticides, rodenticides, or other chemical agents as part of management activities to times and places where possible transport to or by surface water has a low probability of occurrence. Follow all label requirements concerning water quality protection.
(0678) (FDR)

Minerals
Management
General
(G00)

01 Administer areas with producing sites and known reserves with consideration of ongoing and potential mineral activities.
(0640) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management
General
(G00)

02 Avoid or minimize capital investments, such as developed recreation, in or adjacent to areas with known reserves and alienated mineral rights.
(0642) (FDR)

03 In areas of actively producing sites or areas containing known reserves, consider only surface resource programs compatible with minerals activities.
(0644) (FDR)

04 In areas of high to moderate potential for valuable mineral deposits, perform site-specific mineral evaluations prior to making substantial capital investments, such as recreational developments.
(0646) (FDR)

67-III

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Mining Law
Compliance and
Administration
(GO1)

01 Prevent or control adverse impacts on surface resources in accordance with 36 CFR 228.

- a. Unclassified lands: Provide for reclamation of disturbed lands to achieve the planned uses specified in the Forest Plan, when those lands are no longer needed for mining operations.
- b. Designated Wilderness, Congressionally designated Wilderness Study Areas, and areas recommended for wilderness designation by RARE II on which Congressional action has not been completed: Provide for reasonable access of the type necessary to the purpose of proposed operations and for restoration of disturbed lands as near as practical to their natural condition when they are no longer needed for operations.
- c. Other classified lands not withdrawn from operations under the General Mining Laws: Such lands may include Research Natural Areas, National Recreation Areas, "RARE II" Further Planning Areas, Special Interest Areas such as scenic and geologic, National Historic Sites, or some other type of specific classification. The status of classified lands with respect to withdrawal must be checked before an operating plan can be approved. Provide for reasonable protection of the purposes for which the lands were classified and for reclamation of disturbed lands to a condition suitable for the purposes for which the lands were classified.

(0025) (FDR)

02 Withdrawals must be for the purpose of protecting specific existing or proposed uses. Initiate actions for withdrawal from entry under the General Mining Laws when 36 CFR 228 and other applicable laws and regulations will not provide the opportunity for protection of surface resources and uses.

(0026) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Mining Law
Compliance and
Administration
(G01)

03 Review cases of suspected abuse of the mining laws such as occupancy of the land for purposes other than prospecting, mining and related operations. Initiate appropriate actions to resolve. First action should be administrative. Failure of such action requires examination of claims for validity, followed by appropriate contest proceedings or legal action.
(0027) (FDR)

Minerals
Management-Oil,
Gas and
Geothermal
(G02 and G04)

01 Withdrawals of lands from operations of the mineral leasing acts will be requested only in exceptional situations because Federal decisions on mineral disposals under these acts are discretionary on a case-by-case basis.
(0029) (FDR)

III-51

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(G02 and O4)

O2 Recommendations for or consent to issuance of leases or permits may include lands up to one-half mile within a "no lease" area, subject to no surface use or occupancy on the "no lease" lands. Forest Service (R-2) Supplement F to Form 3109-3, "Surface Use or Occupancy Stipulation," will apply to such "no lease" lands. "No lease" criteria appear under major land type headings below.

a) Unclassified Lands:

1) Forest Service authorization of geophysical prospecting will include terms and conditions controlling operating methods and times to prevent or control adverse impacts on surface resources and uses.

2) Recommendations for and consent to BLM issuance of leases and permits will include all current standard stipulations and the Regionally approved special stipulations that may be necessary for additional protection of specific surface resources and uses. Reclamation requirements will have the objective of returning disturbed lands to the planned uses. These standard and current Regionally-approved special stipulations are in Appendix H to this Forest Plan.

(a) Standard stipulations, in addition to those in the basic lease or permit document, are BLM Form 3109-3, "Stipulation for Lands Under Jurisdiction of the Department of Agriculture" and Forest Service (R-2) Supplement D to BLM Form 3109-3, "Surface Disturbance Stipulation."

(b) Special Region 2 Forest Service stipulations will be used as appropriate to the surface resource situation on the lands involved in a lease or permit. These stipulations are titled as supplements to Form 3109-3 and are listed below:

(1) Forest Service (R-2) Supplement G to Form 3109-3, "Limited Surface Use Stipulation." This stipulation notifies a lessee or permittee that certain described conditions exist upon the lands involved that require special operating plan provisions for their protection.

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(G02 and 04)

- (2) Forest Service (R-2) Supplement H to Form 3109-3, "Conditional No Surface Disturbance Stipulation." This stipulation notifies a prospective lessee or permittee that certain described conditions exist upon tracts within the proposed lease or permit area that will prevent any surface disturbance affecting those tracts unless an operating plan can be devised that will convince the Forest Service that surface use, occupancy and reclamation can take place without causing irretrievable environmental damage.
- (3) Forest Service (R-2) Supplement G to Form 3109-3, "Activity Coordination Stipulation." This stipulation notifies the lessee that surface values exist that are sensitive to high levels of activity. In such circumstances, the Forest Service may require that activities on the lease lands, when multiple leaseholds are involved, be conducted by a single operator, similar to the conduct of operations under a unitization agreement approved by the Minerals Management Service. An alternative approach would be joint Forest Service/Minerals Management Service approval of a coordinated plan of operations involving multiple operators.
- 3) Recommend against or deny consent to BLM for issuance of leases where operational damages on surface resources, including the impacts of surface-based access, product transportation and ancillary facilities necessary to production and related operations, would be irreversible and irretrievable, with no potential for reclamation ("no lease" lands). Negative recommendations or consent denials will be based on site-specific consideration of the following criteria:
- (a) Slopes steeper than 60 percent.
 - (b) High erosion hazard rating.
 - (c) High geologic hazard rating.

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(G02 and 04)

- (d) Low visual absorption capacity that prevents reclamation to established visual quality objective (VQO).
 - (e) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the survival or recovery of federally listed threatened and endangered (T&E) wildlife or plant species.
 - (f) Intrusions upon the identified critical (USFWS) or essential (FS) habitat of a federally listed (T&E) wildlife or plant species or upon the plant or animal itself.
 - (g) Intrusion upon the habitat of individual plant or animal species listed by a state as threatened or endangered.
 - (h) Intrusion upon the habitat of individual plant or animal species identified by the Regional Forester as needing special management to prevent its need for listing as a threatened or endangered species.
- b) Designated Wilderness, Congressionally designated Wilderness Study Areas, and areas recommended for Wilderness in RARE II on which Congress has not taken final action:
- 1) Geophysical prospecting, when authorized, will be subject to terms and conditions insuring that operations will be done by methods and at such times that there will be no significant adverse impacts on surface resources.
 - (a) Geophysical prospecting will be authorized on leased lands and on lands for which the Forest Service will recommend or consent to the issuance of leases and permits ("leasable" lands).
 - (b) Geophysical prospecting may be authorized:
 - (1) For "no lease" lands (see "c." following) adjacent to leased or leasable lands when the operator can show that geophysical

FOREST DIRECTION

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(GD2 and O4)

information is necessary for exploratory drilling, or for field development on the leased/leasable lands in the event of a discovery of producible oil, gas or geothermal resources on leased lands.

(2) For "no lease" lands when the prospecting proponent can show that the geophysical information is necessary for extending subsurface interpretation from leased/leasable lands across "no lease" lands to other leased/leasable lands. The proponent must also demonstrate that the information can be gained in no other way without significant adverse impacts on surface resources.

2) Unless there is statutory language to the contrary, in which case the statutory provisions control, recommend or consent to BLM for issuance of leases where operations, including surface-based access, product transportation and other necessary ancillary facilities, will not cause irreversible and irretrievable damage to surface resources and where the lands disturbed can be restored as near as practical to natural conditions. In addition to all current standard stipulations, the following special Regional stipulation will be applied and is part of Appendix H to this Forest Plan:

Forest Service (R-2) Supplement R to Form 3109-3, "Wilderness Stipulation." This stipulation gives notice of the special nature of the lands involved; specifies the sequence of geophysical investigations and exploratory drilling, with air mobilization for the latter; and describes the conditions that must be met for surface access should a commercial discovery be made. The stipulation also provides for its automatic rescission and replacement should the Congress return the lands to non-wilderness management.

3) Recommend against or deny consent to BLM for issuance of leases where operational damages on surface resource, including the impacts of surface-based access, product transportation and ancillary facilities neces-

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(GD2 and 04)

sary to production and related operations, would be irreversible and irretrievable, with no potential for reclamation ("no lease" lands). Negative recommendations or consent denials will be based on site-specific consideration of the following criteria:

- (a) Slopes steeper than 40 percent.
 - (b) High erosion hazard rating.
 - (c) High geologic hazard rating.
 - (d) Low visual absorption capacity that prevents restoration as near as practical to established visual quality (VQO).
 - (e) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the survival or recovery of federally listed threatened or endangered (T&E) wildlife or plant species.
 - (f) Intrusions upon the identified critical (USFWS) or essential (FS) habitat of a federally listed (T&E) wildlife or plant species or upon the plant or animal itself.
 - (g) Intrusion upon the habitat of individual plant or animal species listed by a state as threatened or endangered.
 - (h) Intrusion upon the habitat of individual plant or animal species identified by the Regional Forester as needing special management to prevent its need for listing as a threatened or endangered species.
- c) Classified lands other than Wilderness and related, as described in "2" foregoing, which are not by law or otherwise withdrawn from operations under the mineral leasing acts. Examples of such lands include Wild and Scenic River System, RARE II Further Planning Areas, National Recreation Areas, National Historic Sites, Natural Areas, Special Areas--such as geological, scenic and zoological, and some other specific classifications.

FOREST DIRECTION

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(G02 and 04)

- 1) Forest Service authorize geophysical and similar prospecting only when terms and conditions can be applied that will protect the purposes for which the lands were classified.
- 2) Recommendations for and consent to BLM for issuance of leases and permits will include all current standard stipulations and the current Regionally-approved special stipulations necessary to protect the purposes for which the lands were classified. Standard and special stipulations are in Appendix H to this Forest Plan.

See 1.b(1) under this Management Activity heading, foregoing, for the standard stipulations. Special stipulations to be applied as appropriate are:

- (a) Forest Service (R-2) Supplement A to Form 3109-3, "Further Planning Area Stipulation." This stipulation applies to lands identified for further planning in the RARE II decision documents. It specifies the nature and extent of operations allowed and the conditions to be met for their approval.
- (b) Forest Service (R-2) Supplement B to Form 3109-3, "Classified Area Stipulation." This stipulation applies to lands classified under 36 CFR 251.23 and 294.1 for specific management purposes. Because of the regulatory provisions, no use or occupancy inconsistent with the classification is permitted. This does not necessarily mean recommendation against or denial of consent to BLM for issuance of leases. The reason is that classified areas may be only small portions of large leaseholds.
- (c) Forest Service (R-2) Supplement C to Form 3109-3, "Limited Surface Use Stipulations." This stipulation notifies a lessee or permittee that certain described conditions exist upon the lands involved that require special operating plan provisions for their protection.
- (d) Forest Service (R-2) Supplement E to Form 3109-3, "Wild and Scenic Rivers System Stipulations."

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Gil,
Gas and
Geothermal
(G02 and G4)

This stipulation establishes operating conditions for lands under study by Congress for inclusion in the National Wild and Scenic Rivers System. It also provides for establishing appropriate operational controls should the lands be included in that system or should the lands not be added to the system.

- (e) Forest Service (R-2) Supplement H to Form 3109-3, "Conditional No Surface Disturbance Stipulation." This stipulation notifies a prospective lessee that certain described conditions exist upon tracts within the proposed lease or permit area that will prevent any surface disturbance affecting these tracts unless an operating plan can be devised that will convince the Forest Service that surface use, occupancy and reclamation can take place without causing irretrievable environmental damage.
- (f) Forest Service (R-2) Supplement G to Form 3109-3, "Activity Coordination Stipulation." This stipulation notifies the lessee that surface values exist that are sensitive to high levels of activity. In such circumstance, the Forest Service may require that activities on the leased lands, when multiple leaseholds are involved, be conducted by a single operator, similar to the conduct of operations under a unitization agreement approved by the Minerals Management Service. An alternative approach would be joint Forest Service/Geological Survey approval of a plan of operations involving multiple operators.

3) Recommend against or deny consent to BLM for issuance of leases where operation damages on surface resources, including the impacts of surface-based access, product transportation and ancillary facilities necessary to production and related operations, would be irreversible and irretrievable, with no potential for reclamation ("no lease" lands). Negative recommendations or consent denials will be based on site-specific consideration of the following criteria:

- (a) Would operations destroy or irretrievably damage the characteristics or purposes for

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-Oil,
Gas and
Geothermal
(G02 and Q4)

which the lands were classified?

- (b) Slopes steeper than 40 percent.
- (c) High erosion hazard rating.
- (d) High geologic hazard rating.
- (e) Low visual absorption capacity that prevents reclamation to established visual quality objective (VQO).
- (f) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the survival or recovery of federally listed threatened or endangered (T&E) wildlife or plant species.
- (g) Intrusions upon the identified critical (USFWS) or essential (FS) habitat of a federally listed (T&E) wildlife or plant species or upon the plant or animal itself.
- (h) Intrusion upon the habitat of individual plant or animal species listed by a state as threatened or endangered.
- (i) Intrusion upon the habitat of individual plant or animal species identified by the Regional Forester as needing special management to prevent its need for listing as a threatened or endangered species.

(3501SJ) (FDR)

Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, Q5, Q6
and Q7)

Q1 Withdrawals of lands from operations of the mineral leasing acts will be requested only in exceptional situations because Federal decisions on mineral disposals under these acts are discretionary on a case-by-case basis.
(0029) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

02 Withdrawals from disposal of common variety mineral
materials are unnecessary. The Forest Service has total
discretionary authority for such disposals.
(0030) (FDR)

III-60

FOREST DIRECTION

CONTINUATION OF:
Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(003, 05, 06
and 07)

03 General direction for Unclassified lands, Designated Wilderness, and Classified lands other than Wilderness and related are:

a) Unclassified Lands:

1) Forest Service authorize common variety exploration and disposals under terms and conditions to prevent or control adverse impacts on surface resources and uses. The objective of reclamation requirements will be to return disturbed lands to the planned uses.

2) Recommendations for and consent to BLM for issuance of leases, permits, and coal exploration licenses will include all current standard stipulations and the Regionally-approved special stipulations that may be necessary for additional protection of specific surface resources. The objective of reclamation requirements will be to return disturbed lands to the planned uses. The standard and current Regionally-approved special stipulations are in Appendix H to this Forest Plan.

(a) Standard Stipulations, in addition to those in the basic lease, permit or license document, are BLM Form 3109-3, "Stipulation for Lands Under Jurisdiction of the Department of Agriculture," and Forest Service (R-2) stipulation, Supplement D to BLM Form 3109-3, "Surface Disturbance Stipulation."

(b) Special Forest Service, Region 2, Stipulations will be used as appropriate to the surface resource situation involved in a lease, permit or license. These stipulations are titled as supplements to BLM Form 3109-3 and are listed below:

(1) Forest Service (R-2) Supplement C to Form 3109-3, "Limited Surface Use Stipulations." This stipulation notifies a lessee, permittee or licensee that certain described conditions exist upon the lands involved that require special operating plan provisions for their protection.

CONTINUATION OF:
Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

- (2) Forest Service (R-2) Supplement H to Form 3109-3, "Conditional No Surface Disturbance Stipulation." The usual application of this stipulation for minable minerals will be in exploration permits and licenses. The stipulation notifies a prospective lessee, permittee or licensee that certain described conditions exist upon tracts within the proposed lease or permit area that will prevent any surface disturbance affecting those tracts unless an operating plan can be devised that will convince the Forest Service that surface use, occupancy and reclamation can take place without causing irretrievable environmental damage.
- 3) Recommend against or deny consent to BLM for issuance of leases, permits or coal exploration licenses where operational damages on surface resources, including the impacts of surface-based access, product transportation and ancillary facilities necessary to production and related operations, would be irreversible and irretrievable, with no potential for reclamation. Negative recommendations or consent denials will be based on consideration of the following criteria:
- (a) Terrain as it affects waste dumps and tailings disposal--related to dump and tailing stability, adequate room for placement.
 - (b) Whether or not negative impacts on water quality are preventable.
 - (c) For surface-based access, product transportation and ancillary facilities necessary to operations; Slopes steeper than 60 percent; high erosion hazard; high geologic hazard.
 - (d) Low visual absorption capacity that prevents reclamation to established visual quality objective (VQO).
 - (e) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the survival recovery of federally listed threatened

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management--
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(003, 05, 06
and 07)

or endangered (T&E) wildlife or plant species.

(f) Intrusions upon the identified critical (USFWS) or essential (FS) habitat of a federally listed (T&E) wildlife or plant species or upon the plant or animal itself.

(g) Intrusion upon the habitat or individual plant or animal species listed by a state as threatened or endangered.

(h) Intrusion upon the habitat of individual plant or animal species identified by the Regional Forester as needing special management to prevent its need for listing as a threatened or endangered species.

(i) Application of the coal unsuitability criteria to lands proposed for coal leases (43 CFR 3461).

b) Designated Wilderness, Congressionally-designated Wilderness study areas, and areas recommended for Wilderness in RARE II on which Congress has not taken final action.

1) Prospecting for and disposals of common varieties of mineral materials will not be authorized.

2) Coal mining in the National Wilderness Preservation System is prohibited by the Coal Leasing Amendments Act of 1975. Therefore, coal leasing and coal exploration licenses will not be authorized for any of the foregoing described lands.

3) Unless there is statutory language to the contrary, in which case the statutory provisions control, recommend, or consent to BLM for issuance of leases or permits where operations, including surface-based access, product transportation and other necessary ancillary facilities, will not cause irreversible and irretrievable damage to surface resources and where the lands disturbed can be restored as near as practical to natural conditions. In addition to all current standard stipulations, the special stipulation described below will be applied; this stipulation is part of Appendix H to this Forest Plan.

FOREST DIRECTION

CONTINUATION OF:

Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

Forest Service (R-2) Supplement S to Form 3109-3, "Wilderness Stipulation." This stipulation provides for rigorous controls over access and all operating conditions and related facilities and operations; gives notice of the special nature of the lands involved; specifies the sequence of exploratory and other operations, with air mobilization for the former; and describes the conditions that must be met for surface access should commercial discovery be made. The stipulation also provides for its automatic rescission and replacement should Congress return the lands to nonwilderness management.

- 4) Recommend against or deny consent to BLM for issuance of leases or permits where operational damages on surface resources, including the impacts of surface-based access, product transportation and ancillary facilities necessary to operations, would be irreversible and irretrievable, with no potential for restoration as near as practical to natural conditions. Negative recommendations or consent denials will be based on consideration of the following criteria:

- (a) Terrain as it affects waste dumps and tailings disposal--related to dump and tailing stability, adequate room for placement, and whether or not waste and tailings can be handled or treated in a manner that would allow restoration as near as practical to natural conditions.
- (b) Whether or not negative impacts on water quality are preventable.
- (c) For surface-based access, product transportation and ancillary facilities necessary to operations: Slopes steeper than 40 percent; high erosion hazard; high geologic hazard.
- (d) Low visual absorption capacity that prevents restoration to established visual quality objective (VQO).
- (e) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the sur-

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management--
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

vival or recovery of federally listed threatened
or endangered (T&E) wildlife or plant species.

(f) Intrusions upon the identified critical (USFWS)
or essential (FS) habitat of a federally listed
(T&E) wildlife or plant species or upon the
plant or animal itself.

(g) Intrusion upon the habitat of individual plant
or animal species listed by a state as
threatened or endangered.

(h) Intrusion upon the habitat of individual plant
or animal species identified by the Regional
Forester as needing special management to
prevent its need for listing as a threatened or
endangered species.

c) Classified lands other than Wilderness and related, as
described in "b" foregoing, which are not by law or
otherwise withdrawn from operations under the mineral
leasing acts. Examples of such lands include Wild and
Scenic River System, RARE II Further Planning Areas,
National Recreation Areas, National Historic Sites,
Natural Areas, Special Areas--such as geological, scenic
and zoological, and some other specific classifications.

1) Forest Service authorize common variety exploration
and disposals under terms and conditions to protect
the purposes for which the lands were classified.
The objective of reclamation requirements will be to
return disturbed lands to a condition suitable for
the purposes for which they were classified.

For Special Areas classified under 36 CFR 294 and
251.23 for specific management purposes, the regula-
tory provisions permit no use or occupancy inconsis-
tent with the classification.

2) Coal mining is prohibited by the Coal Leasing
Amendment Act of 1975, within the National System of
Trails and the Wild and Scenic Rivers System,
including Study rivers designated by that Act. This
prohibition also applies to the National Park System
and the National Wildlife Refuge System, which lands
are not under Forest Service jurisdiction.

FOREST DIRECTION

CONTINUATION OF:

Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

- 3) Recommend or consent to BLM for issuance of leases, permits or licenses only when terms and conditions can be applied that will protect the purposes for which the lands were classified.
- 4) Recommendations and consent to BLM for issuance of leases, permits or licenses will include all current standard stipulations and the current Regionally approved special stipulations necessary to protect the purposes for which the lands were classified. Standard and special stipulations are in Appendix H to this Forest Plan. See 1.b.(1) under this management heading for the standard stipulations. Special stipulations to be applied as appropriate are:
 - (a) Forest Service (R-2) Supplement A to Form 3109-3, "Further Planning Area Stipulation." This stipulation applies to lands identified for further planning in the RARE II decision documents. It specifies the nature and extent of operations allowed and the conditions to be met for their approval.
 - (b) Forest Service (R-2) Supplement B to Form 3109-3, "Classified Area Stipulation." This stipulation applies to lands classified under 36 CFR 294 and 251.23 for specific management purposes. Because of the regulatory provisions, no use or occupancy inconsistent with the classification is permitted. This does not necessarily mean recommendation against or denial of consent to issuance of leases, permits or licenses is necessary. The reason is that classified areas may be only small portions of the lands involved.
 - (c) Forest Service (R-2) Supplement C to Form 3109-3, "Limited Surface Use Stipulation." This stipulation notifies a lessee, permittee or licensee that certain described conditions exist upon the lands involved that require special operating plan provisions for their protection.
 - (d) Forest Service (R-2) Supplement H to Form 3109-3, "Conditional No Surface Disturbance Stipulation." This stipulation notifies the prospective lessee,

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

permittee or licensee that certain described conditions exist upon tracts within the proposed lease or permit area that will prevent any surface disturbance affecting those tracts unless an operating plan can be devised that will convince the Forest Service that surface use, occupancy and reclamation can take place without causing irretrievable environmental damage.

- 5) Recommend against or deny consent to issuance of leases, permits or licenses where operational damages on surface resources including the impacts of surface-based access, product transportation and ancillary facilities necessary to production and related operations, would be irreversible and irretrievable, with no potential for reclamation. Negative recommendations or consent denials will be based on consideration of the following criteria:
- (a) Would operations destroy or irretrievably damage the characteristics or purposes for which the lands are classified?
 - (b) Terrain as it affects waste dumps and tailings disposal--related to dump and tailing stability, adequate room for placement, and whether or not waste and tailings can be handled or treated in a manner that results in no detrimental effects on the purposes for which the lands were classified.
 - (c) Whether or not negative impacts on water quality are preventable.
 - (d) For surface-based access, product transportation and ancillary facilities necessary to operations: Slopes steeper than 40 percent; high erosion hazard; high geologic hazard.
 - (e) Low visual absorption capacity that prevents reclamation to established visual quality objective (VQD).
 - (f) A conclusion by the Forest Service (FS) and/or the United States Fish and Wildlife Service (USFWS) that the action will jeopardize the sur-

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

vival recovery of federally listed threatened
or endangered (T&E) wildlife or plant species.

- (g) Intrusions upon the identified critical (USFWS)
or essential (FS) habitat of a federally listed
(T&E) wildlife or plant species or upon the
plant or animal itself.
- (h) Intrusion upon the habitat or individual plant
or animal of a species listed by a state as
threatened or endangered.
- (i) Intrusion upon the habitat or individual plant
or animal of a species identified by the Regional
Forester as needing special management to
prevent its need for listing as a threatened or
endangered species.
- (j) Application of the coal unsuitability criteria to
lands proposed for coal leases (43 CFR 3461).

(3502SJ) (FDR)

Special Use
Management (Non-
Recreation)
(J01)

01 Act on special use applications according to the follow-
ing priorities:

- a. Land and land use activity requests relating to public
safety, health and welfare, e.g., highways, powerlines
and public service improvements.
- b. Land and land use activities contributing to increased
economic activity associated with National Forest
resources, e.g., oil and gas, and energy minerals.
- c. Land and land use activities that benefit only private
users, e.g., road permits, rights-of-way for power-
lines, telephones, waterlines, etc.

(0065) (FDR)

02 Do not approve any special use applications that can be
reasonably met on private or other Federal lands unless it
is clearly in the public interest.

(0071) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Special Use
Management (Non
-Recreation)
(J01)

03 Bury electrical utility lines of 33 KV or less and
telephone lines except when:

- a. Visual quality objectives of the area can be met using
an overhead line.
- b. Burial is not feasible due to geologic hazard or un-
favorable geologic conditions.
- c. It is not economical as determined by a cost analysis.
- d. Greater long-term site disturbance would result.
- e. It is not technically feasible.

(0072) (FDR)

04 Do not approve special use applications for areas
adjacent to developed sites unless the proposed use is
compatible with the purpose and use of the developed site.

(0389) (FDR)

Rights-of-way
and Land
Adjustments
(J02, 13, 15,
16, 17, and 18)

01 Acquire rights-of-way on existing Forest System roads
and trails that cross private land.

(0162) (FDR)

02 Insure floodplain and wetland values are approxi-
mately equal on both offered and selected tracts in
proposed land exchanges or that values are in favor of
the United States.

(0006) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Rights-of-way
and Land
Adjustments
(JO2, 13, 15,
16, 17, and 18)

- 03 Classify lands or interest in lands for acquisition where lands are valuable for NFS purposes according to the following priorities:
- a) In designated wilderness areas and other Congressionally classified areas.
 - b) Where lands or rights-of-way are needed to meet resource management goals and objectives.
 - c) Lands which provide habitat for threatened and endangered species of animals and plants.
 - d) Lands which include floodplain or wetlands.
 - e) On lands having historical or cultural resources, outstanding scenic values or critical ecosystems, when these resources are threatened by change of use or when management may be enhanced by public ownership.

(4204SJ) (FDR)

04 Classify lands for disposal according to the following priorities:

- a) To States, counties, cities, or other Federal agencies when disposal will serve a greater public interest.
- b) In small parcels intermingled with mineral or homesteads patents.
- c) When suitable for development by the private sector, if development (residential, agricultural, industrial, recreational, etc.) is in the public interest.
- d) When critical or unique resource (wetlands, floodplains, essential big game winter range, threatened or endangered species habitat, historical or cultural resources, critical ecosystems, etc.) effects are mitigated by reserving interests to protect the resource, or by exchange where other critical resources to be acquired are considered to be of equal or greater value.

(4205SJ) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Rights-of-way
and Land
Adjustments
(J02, 13, 15,
16, 17, and 18)

05 Effect jurisdictional transfers which achieve the following objectives:

- a. Reduce duplication of efforts by users and agencies in terms of time, cost, and coordination.
- b. Improve or maintain user access to the administering agency.
- c. Decrease travel and enhance management.
- d. Improve public understanding of applicable laws, regulations, policies, and procedures.
- e. Develop more effective and efficient work units.
- f. Reduce administrative cost.

(0070) (FDR)

Property
Boundary
Location
(J06)

01 Locate, mark, and post landlines according to the following priorities:

- a. Lines needed to meet planned activities;
- b. Lines needed to protect NFS lands from encroachment, and
- c. All other lines.

(0068) (FDR)

III-71

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Soil Resource
Management
(KA1)

O1 Maintain soil productivity, minimize man-caused soil erosion, and maintain the integrity of associated ecosystems.

- a. Use site preparation methods which are designed to keep fertile, friable topsoil essentially intact.
- b. Give roads and trails special design considerations to prevent resource damage on capability areas containing soils with high shrink-swell capacity.
- c. Provide adequate road and trail cross drainage to reduce sediment transport energy.
- d. Revegetate all areas, capable of supporting vegetation, disturbed during road construction and/or reconstruction to stabilize the area and reduce soil erosion. Use less palatable plant species on cuts, fills, and other areas subject to trampling damage by domestic livestock and big game to discourage grazing by herbivores.
- e. Prevent livestock and wildlife grazing which reduces the percent of plant cover to less than the amount needed for watershed protection and plant health.
- f. Place tractor-built firelines on the contour, where possible, and avoid use of tractors on highly erodable sites.
- g. Provide permanent drainage and establish protective vegetative cover on all new temporary roads or equipment ways, and all existing roads which are being removed from the transportation system.
- h. Minimize soil compaction by reducing vehicle passes, skidding on snow, frozen or dry soil conditions, or by off-ground logging systems.
- i. Restore soil disturbance caused by human use to soil loss tolerance levels commensurate with the natural ecological processes for the treatment

a. Use the following Standards and Guidelines unless more site specific requirements are developed during project design.

- 1) Limit intensive ground disturbance if slopes are greater than 30 percent, are unstable, or have highly erodible soils, to the following:
 - a) Limit exposure of mineral topsoil to well distributed small, non-contiguous units which do not exceed 40 percent of an area in aggregate, except for road or trail construction or reconstruction projects.
 - b) Limit soil mixing and exposure of fine textured subsoils (> 35% clay) on sites designated for vegetative production, by allowing only specialized equipment and identifying travel routes and turn around points.
- 2) Apply Packer's guides in the design for cross drain spacing and buffers.
- 3) Ghisel or rip, on the contour, compacted soils. Soils are considered compacted if there is a 15 percent increase in bulk density or a 59 percent decrease in macro pore space.
- 4) Do not allow skid trails, unsurfaced roads, and other developments promoting compaction to exceed 20 percent of the total area on highly compactible soils.

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Soil Resource (0608) (FDR) areas.

(KA1)

- 5) Use root cutters, in conjunction with brush raking, only if the depth to fine textured subsoil (> 35% clay) is greater than ten inches.
- 6) Conduct a slope stability examination before habitation, road construction and/or timber harvest begins on those areas having a high potential for mass movement and areas with slopes greater than 60 percent.
- 7) Use mechanical ground lead skidding methods which keep the leading end of the log off the ground on slopes greater than 30 percent to minimize gouging.
- 8) If areas greater than ten acres with highly erosive soils are disturbed, initiate protection measures during and immediately following disturbance.
 - a) Begin revegetation of disturbed areas before the end of the first growing season.
 - b) Monitor and reseed if the ground cover is not sufficient to meet soil loss tolerance levels or 80% of natural production, within two years.
- 9) When soils or vegetative ground cover are disturbed by management activities (except for site preparation projects) stabilization procedures must be started during the second growing season. Revegetation procedures must ensure enough ground cover

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Soil Resource
Management
(KA1)

by the end of the fourth growing season to meet soil loss tolerance levels or the amount present before treatment.

10) Limit the use of mechanical equipment, on projects designed to prepare or alter surface soils, to slopes less than 30 percent. (This does not include timber harvest or road and trail construction and reconstruction.)

(9101SJ) (FDR)

02 Identify at the project level, upland areas that are immediately adjacent to Riparian (Prescription 9A) Management Areas. Adjacent upland areas are those portions of a management area which, when subjected to management activities, have a potential for directly affecting the condition of the adjacent Riparian Management Area. The magnitude of effects is dependent upon slope steepness, and the kind, amount, and location of surface and vegetation disturbance within the adjacent upland unit.
(0848) (FDR)

a. The following is a guide to identify the approximate extent of adjacent upland areas:

Slope gradient of upland areas adjacent to Riparian Management Area.	Upslope distance from boundary of Riparian Management Area.
--	---

% Slope Range	Feet
0-20	100
20-30	180
30-40	280
40-50	400
50-60	520
60-70	640
70-80	760
80-90	880
90-100	1000
100-150	1000-1300
(6698)	(FDR)

b. Reduce, through designed management practices and appropriate erosion mitigation and vegetation/restoration measures, the project caused on-site erosion rates (calculated with appropriate Universal Soil Loss

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Soil Resource
Management
(KA1)

Equation methodology) by 75% within the first year after disturbance. Reduce project caused on-site erosion by 95% within five years after initial disturbance (USDA Tech. Pub. SA-TP 11, 1980; USDA SCS Tech. Note No. 10, 1977).

(6700) (FDR)

c. Design continuing mitigation/restoration practices and follow-up maintenance activities to insure that 80% original ground cover (vegetation) recovery occurs within five years after disturbance.

(6702) (FDR)

Transportation
System
Management
(LO1 & 20)

01 Classify areas as to whether off-road vehicle use is permitted.

(0452) (FDR)

a. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).

(6083) (FDR)

b. Prohibit ORV use (except snowmobiles) on areas with slopes over 40 percent and on areas with a high erosion hazard rating except for designated routes.

(9337SJ) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(LO1 & 20)

- 02 Close all newly constructed roads to public motorized use unless documented analysis shows:
- a. Use does not adversely impact other resources;
 - b. Use is compatible with the ROS class established for the area;
 - c. They are located in areas open to motorized use;
 - d. They provide user safety;
 - e. They serve an identified public need;
 - f. The area accessed can be adequately managed; or
 - g. Financing is available for maintenance or coop-maintenance can be arranged.

(0075) (FDR)

03 Manage road use by seasonal closure if:

- a) Use causes unacceptable damage to soil and water resources due to weather or seasonal conditions;
- b) Use conflicts with the ROS class established for the area;
- c) Use causes unacceptable wildlife conflict or habitat degradation;
- d) Use results in unsafe conditions due to weather conditions;
- e) They serve a seasonal public or administration need;
- f) Area accessed has seasonal need for protection or nonuse; or
- g) Use causes unacceptable damage to the road prism due to weather or seasonal conditions.

(4704SJ) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

04 Keep existing roads open to public motorized use unless:

- a) Financing is not available to maintain the facility or manage the associated use of adjacent lands;
- b) Use causes unacceptable damage to soil and water resources;
- c) Use conflicts with the ROS class established for the area;
- d) They are located in areas closed to motorized use and are not "designated routes" in the Forest travel management direction.
- e) Use results in unsafe conditions unrelated to weather conditions;
- f) There is little or no public need for them;
- g) Use conflicts with wildlife management objectives; or
- h) Use causes unacceptable damage to the road prism.

(4705SJ) (FDR)

05 Closed or restricted roads may be used for and to accomplish administrative purposes when:

- a. Prescribed in management area direction statements;
- b. Authorized by the Forest Supervisor; and
- c. In case of emergency.

(007B) (FDR)

Arterial and
Collector Road
Construction and
Reconstruction
(L02 thru L09,
L16 thru L18)

01 Construct and reconstruct arterial and collector roads to meet multiple resource needs.

(0083) (FDR)

a. Construction and reconstruction standards for arterial and collector roads are:

Standard	Arterial	Collector
Travel Speed	Average 15-50 mph	Average 10-30 mph
Lanes	Generally 2 lanes	Generally 1 lane

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Arterial and
Collector Road
Construction and
Reconstruction
(L02 thru L09,
L16 thru L18)

Surface	All weather, generally asphalt or gravel	Generally gravel or native surface, sometimes asphalt
Width	Typically 20 to 24 feet, but some single lane with inter-visible 10-foot turnouts	Typically 12 to 16 feet, with inter-visible 10-foot turnouts
Drainage	Permanent, not to impede traffic	Permanent but may impede traffic
Cattle-guards	Provide at all fence crossings	Provide at all fence crossings

(9302SJ) (FDR)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Construct and reconstruct local roads to provide access for specific resource activities such as campgrounds, trailheads, timber sales, range allotments, mineral leases, etc., with the minimum amount of earthwork.
(0084) (FDR)

a. Construction and reconstruction standards for local roads are:

Travel Speed	Average less than 20 mph
Lanes	Usually single lane except for developed recreation sites.
Surface	Varies from asphalt to native surface; majority native surface.
Width	Typically 10 thru 14

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Local Road
Construction and
Reconstruction
(L11, 12, & 13)

feet. Turnouts optional
depending upon traffic
management. Usually not
intervisible.

Drainage Dips and culverts

Cattle- Provide at fence cross-
guard ings where projected
 use exceeds 12 seasonal
 average daily traffic.

(9303SJ) (FDR)

Road
Maintenance
(L19)

01 Maintain all roads to the following minimum
requirements:

- a. All arterial and open collectors - Level 3;
 - b. All open local roads - Level 2; and
 - c. All closed roads - Level 1.
- (0079) (FDR)

a. See levels of maintenance in
FSM 7730.

(6274) (FDR)

b. Level 1 maintenance includes
upkeep of drainage structures
and vegetation cover necessary
to prevent erosion.
(6324) (FDR)

02 Maintain structures, bridges, cattleguards, etc., to be
structurally sound and safe for use.
(0080) (FDR)

Trail
System
Management
(L23)

01 Maintain all trails for foot and horse travel unless
specifically closed to either or both class of user.
(0451) (FDR)

FOREST DIRECTION

CONTINUATION OF:
Trail
System
Management
(L23)

02 Maintain all trails to the following minimum requirements:

- a. Structures (bridges, corduroy, etc.) are structurally sound and safe for specified class of user,
- b. Maintain drainage structures to prevent unacceptable resource damage, and
- c. Remove hazards from trails to allow safe passage for specified class of users. A safety hazard is a physical condition of a trail which may cause injury, is unusual or unexpected, and not readily identifiable by the trail user. It is not a condition which is easily identifiable and normally encountered for the type or location of the trail involved. The following examples illustrate this distinction:

A hazard is a rotten bridge decking or handrail. A stream crossing where no bridge is provided and the user would expect this on the type and location of the trail is not a hazard.

A hazard is a stable-appearing loose rock in a constructed treadway where all other rocks are stable. A trail treadway made up of rocks in a near-natural position, many of which are loose, is not a hazard.

A hazard is a perennial bog-hole on a horse trail. An intermittent bog-hole which will dry up by early summer or within a few days following a rain storm is not a hazard.

A hazard is a section of trail treadway supported by rotten cribbing. A section of trail where the treadway is obviously slippery is not a hazard.

A hazard is a marked ford with holes deeper than the normal channel. A deep ford with a consistent stream bed is not a hazard.

(0074) (FDR)

03 Provide a full range of trail opportunities in coordination with other Federal, State, and municipal jurisdictions and private industries both on and off NFS lands.

(0455) (FDR)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Trail
System
Management
(L23)

04 CONTINENTAL DIVIDE NATIONAL SCENIC TRAIL (CDNST):
Apply Interim Management for the CDNST corridor
to identified alternative routes utilizing both
existing trails and roads and nonexisting routes
which may be used as connecting travel segments.
Interim management will establish visual quality
objectives for the Foreground and Middleground
areas within the corridor.
(0354) (FDR)

a. The CDNST corridor is that area
which encompasses the foreground
and middleground of the seen-area
as viewed from the alternative
travel routes identified in the
CDNST Comprehensive Plan.
Interim management which protects
the current scenic quality
and recreation opportunities
will be applied until such
time that a specific trail
route is formally design-
ated as a part of the
CDNST System.
(6198) (FDR)

b. All travel route alterna-
tives within the CDNST corridor
have a Visual Management System
(VMS) sensitivity Level I
classification until a specif-
ic trail route is formally
designated. Foreground
and middleground areas within
the corridor will meet the high-
est visual quality objective
available within the existing
visual condition class con-
straints and the visual quality
objective of the management
area.
(6199) (FDR)

05 Do not mark existing travel routes as being
a part of the CDNST system until they have been
formally designated.
(0355) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Trail
System
Management
(L23)

06 Upon formal designation of a travel route segment as a part of the CDNST system, manage the segment to emphasize foot travel, provide for horse use where safe to do so, and the continuation of motorized use where presently permitted and considered appropriate in the management direction for the overall management area. Give consideration to the needs of the long-distance traveler. Where motorized use is permitted, limit to snowmobiles operating on snow and vehicles with less than 40 inch width. Where the route coexists with a primitive local road, it may be open to use by larger vehicles.
(0356) (FDR)

- a. The formally designated CDNST travelway will have a sensitivity Level I classification. Foreground and middleground areas, as seen from the trail, will meet the highest visual quality objective available within the existing visual condition class constraints, and the visual quality objective of the specific management area.
(6200) (FDR)
- b. Mark trail routes using the CDNST logo according to appropriate standards in the Comprehensive Plan.
(6201) (FDR)
- c. All other prescribed direction, standards and guidelines for the specific management area through which the (CDNST) passes apply.
(6203) (FDR)
- d. Maintain trails in accordance with standards in the Trail Handbook (FSH 7709.12).
(6129) (FDR)
- e. Schedule trail maintenance in accordance with Regional Acceptable Work Standards. (FSM 1310 R2 ID No. 1 7/22/82.)
(6131) (FDR)
- a. Cross drains and conveyance structures are planned according to Forest Design Standards.
(6326) (FDR)

Trail
Construction and
Reconstruction
(L22)

01 Construct or reconstruct trails when needed as part of the transportation system.
(0399) (FDR)

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives for the area considering the following:

- a. The values of the resources that are threatened by fire,
- b. The probability of fire occurrence,
- c. The fuelbed that fires will probably occur in,
- d. The weather conditions that will probably influence fires that occur,
- e. The costs of fire protection programs (FFP and FFF),
- f. The social, economic, political, cultural, environmental, life and property concerns; and
- g. Management objectives for the area. Use the Fire Management Analysis process (FSH 5109.19) for this analysis.

(Q111) (FDR)

Escaped Fire
Suppression
(P09)

01 Take suppression action on all escaped fires considering the following:

- a. The values of the resources threatened by the fire (both positive and negative),
- b. Management objectives for the threatened area(s),
- c. The fuelbeds the fire may burn in,
- d. The current and projected weather conditions that will influence fire behavior,
- e. Natural barriers and fuel breaks,
- f. Social, economic, political, cultural, and environmental concerns,
- g. Public safety,
- h. Firefighter safety; and
- i. Costs of alternative suppression strategies. Use the escaped fire situation analysis to make this determination (FSM 5130.31).

(Q112) (FDR)

Fuel Treatment
(P11 thru 14)

01 Maintain fuel conditions which permit fire suppression forces to meet fire protection objectives for the area.

(Q113) (FDR)

a. Reduce or otherwise treat all fuels so the potential fireline intensity of an area will not exceed 400 BTU's/sec/ft (B.I.-68) on 90% of the days during the regular fire season,
or
Break up continuous fuel concentrations exceeding the above

FOREST DIRECTION

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fuel Treatment
(P11 thru 14)

standard into manageable units
with fuel breaks or fire lanes,
or
Provide additional protection for
areas exceeding the above standard
when such protection will not be
required for more than five years.
(6056) (FDR)

Vegetation
Treated by
Burning
(P15)

01 Use prescribed fire to accomplish resource management
objectives, such as reducing fuel load buildup, wildlife
habitat improvement, etc.
(0101) (FDR)

02 Limit use of prescribed fires on areas adjacent to
riparian areas to protect riparian and aquatic values.
(0102) (FDR)

03 Use unplanned ignitions in all wildernesses and planned
and unplanned ignitions on non-wilderness lands to achieve
management objectives.

(5002SJ) (FDR)

Air Resource
Management
(P16)

01 Comply with State and Federal air quality standards.
(See FSM 2120)
(0094) (FDR)

Insect and Dis-
ease Management/
Suppression
(P35)

01 Prevent or suppress epidemic insect and disease
populations that threaten forest tree stands with
an integrated pest management (IPM) approach con-
sistent with resource management objectives.
(0148) (FDR)

FOREST DIRECTION

MANAGEMENT AREA DIRECTION

The management area prescriptions included in this section represent the Management Area Direction applicable to specific areas of land. These management area prescriptions, and others, in various combinations were used as the basis for developing the alternatives analyzed in the accompanying final Environmental Impact Statement.

A management area prescription number was assigned to each management area in order to link the prescription to the land area. The location of management areas is illustrated on the Management Area Map inserted inside the back cover of this document. Wilderness Study Areas are an exception to the general application of prescriptions to show management areas.

This Plan identifies both the Piedra (41,500 acres) and West Needle (15,800 acres) Wilderness Study Areas as suitable for wilderness designation. These areas are shown as containing Management Areas 8A, 8B, 8C, and 8D, which are wilderness management areas. Until Congress acts, both areas will be managed to maintain the qualities which make them possible for inclusion in the National Wilderness Preservation System.

The South San Juan Wilderness Expansion Study Area (32,800 acres) is being identified as unsuitable for wilderness designation. The map shows that this area has several management areas which include development in their prescriptions. These prescriptions will not be implemented unless Congress designates this area as non-wilderness. In the interim, this area will also be managed to maintain the qualities which make it possible for inclusion in the National Wilderness Preservation System.

The prescription for each management area consists of a prescription summary and a set of management requirements. The prescription summary identifies the primary emphasis of the prescription. All prescriptions are multiple use prescriptions, but each has a primary emphasis.

Management requirements are presented in three columns: Management Activities, General Direction Statements, and Standards and Guidelines.

Management Activities are work processes that are conducted to produce, enhance, or maintain levels of outputs, or to achieve administrative and environmental quality objectives. Management Activities are identified by a code number and title defined in the Management Information Handbook (FSH 1309.11) dated July 1980. In some cases, management activities were grouped under one activity when it was not appropriate to develop separate requirements. Not all management activities need management requirements. When there are no management requirements listed for an activity, the Forest Direction or direction in laws, regulations, executive orders, or Forest Service directives adequately covers the activity.

General Direction Statements specify the actions, measures, or treatments (management practices) to be done when implementing the management activity or the condition expected to exist after the general direction is implemented.

Standards and Guidelines are quantifications of the acceptable limits within which the general direction is implemented.

MANAGEMENT AREA SUMMARY

The following summary lists the management emphasis and shows the acreage allocations for each management area:

<u>Management Area</u>	<u>Emphasis</u>	<u>Acres</u>
1A	Developed recreation sites (acres are contained within other management areas).	(562)
1B	Winter sports sites.	13,042
1D	Utility Corridors (acres were not calculated and are contained within other management areas).	--
2A	Semi-primitive motorized recreation opportunities.	93,652
2B	Rural and roaded-natural recreation opportunities.	54,654
3A	Semi-primitive non-motorized recreation opportunities.	386,226
4B	Wildlife habitat for management indicator species.	79,327
5B	Big game winter range.	144,836
6B	Livestock grazing.	289,148
7C	Management of forested areas for wood-fiber production and utilization on steep slopes.	55,229
7E	Management of forested areas for wood-fiber production and utilization on gentle slopes.	238,477
8A	Pristine wilderness opportunities.	318,273
8B	Primitive wilderness opportunities.	43,671
8C	Semi-primitive wilderness opportunities.	41,951

<u>Management Area</u>	<u>Emphasis</u>	<u>Acres</u>
8D	Limited areas of wilderness providing for high density day use.	8,461
	Maintenance of the qualities of an area which make it possible for inclusion in the National Wilderness Preservation System; to be used on all Wilderness Study Areas, regardless of the Plan's recommendation, until Congress acts. (Acres are shown within other management areas).	(90,100)
9A	Riparian areas.	38,413
9B	Increased water yield.	38,739
10A	Research Natural Areas.	2,302
10C	Chimney Rock Archaeological Area, increased public use.	3,160
10D	Wild and Scenic River corridors.	<u>18,221</u>
TOTAL AREA		1,867,782

PRESCRIPTIONS FOR MANAGEMENT AREAS

The following pages contain prescriptions for the management areas. They are in the same order as listed above. Identification numbers shown in parentheses following each General Direction and Standard and Guideline statement are intended to facilitate future tiering to the Forest Plan and final EIS. Users and reviewers of the Plan will find these identification numbers useful for cross-referencing and identification of mitigation measures.

PREScription FOR MANAGEMENT AREA 1A

(Provides for existing and proposed developed recreation sites.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for developed recreation in existing and proposed campgrounds, picnic grounds, trailheads, visitor information centers, summer home groups, and water-based support facilities. Proposed sites (sites scheduled for development in the Plan) are managed to maintain the site attractiveness until they are developed.

Facilities such as roads, trails, toilets, signs, etc., may be dominant but harmonize and blend with the natural setting. Livestock grazing is generally excluded from developed sites. Existing and proposed sites are withdrawn from locatable mineral entry.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession unless specific vegetation treatment is necessary to meet recreation and visual objectives or for insect and disease control. (0034SJ) (01A)	
Visual Resource Management (A04)	01 Emphasize visually appealing landscapes (vista openings, rock outcroppings, diversity of vegetation, etc.) (0104) (01A)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of: -Partial Retention in Development Level 2 Sites. -Modification in Development Level 3, 4 and 5 Sites. (6136) (01A) b. Sensitivity level: Development Level 3, 4, and 5 sites are Sensitivity Level one. (6221) (01A) c. Apply rehabilitation practices where the above objectives are not currently being met. (6068) (01A)
	02 Facilities may dominate, but will harmonize and blend with the natural foreground and middle-ground landscape. (0384) (01A)	
Recreation Site Construction and Rehabilitation (A05 AND 06)	01 Design facilities and access to provide site protection, efficient maintenance, and user convenience. Design and develop sites to ensure that developed capacity does not exceed season-long carrying capacity. (0383) (01A) 02 Provide at least 10 percent of the units in level 3 and 4 camp and picnic sites to accommodate two or more family groups. (0347) (01A)	a. Construct and reconstruct existing and new developed sites in accordance with the guidelines in FSM 2331. (6279) (01A)

MANAGEMENT PRESCRIPTION 01A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Management of
Developed
Recreation Sites
(A08, 09, 11 &
13)

01 Maintain all developed sites in accordance
with Regional Acceptable Work Standards
(FSM 1310 R2 ID No. 1 7/22/82)

(0386) (01A)

02 Maintain facilities in a safe condition. Replace
facilities when rehabilitation costs 50 percent or more of
replacement costs or when existing facilities are no longer
compatible with site design or RDS classification.

(0387) (01A)

a. See FSM 2309.11, Sec. 122.
(6222) (01A)

Range Resource
Management
(D02)

01 Manage livestock grazing to enhance recreation
opportunities in existing and proposed recreation sites.

(0110) (01A)

a. Construct fences of mater-
ial other than barbed wire
around developed sites.
(6281) (01A)

02 Exclude grazing of recreational stock and livestock in
developed recreation sites during the managed recreation use
season.

(0059) (01A)

a. Maintain vegetation in
fair or better range condition.
(6061) (01A)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage tree stands to enhance visual quality and
recreation opportunities on existing and proposed
recreation sites.

(0115) (01A)

02 Remove unsafe and or dead trees in developed sites.
Plant new trees to provide desired tree cover when natural
regeneration is insufficient.

(0466) (01A)

a. See Technical Report R-2-1
(1981) Tree Hazards: Recognition
and Reduction in Recreation Sites.
(6630) (01A)

06-III

MANAGEMENT PRESCRIPTION 01A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

03 Timber will be available on a low yield basis, although sustained non-declining timber yield is not planned. Manage forest cover types as follows:

- a) Interior Ponderosa Pine: Develop open park-like groups by growing trees at low densities, planting ground cover or grass understory, and maintaining the groups until they become decadent.
- b) Aspen: Maintain the aspen community except on sites that are naturally converting to conifers. As pure aspen stands become decadent, clearcut the stand in staged patches and allow natural regeneration to aspen.
- c) Engelmann Spruce-Subalpine Fir and Mixed Conifer: Maintain a healthy stand condition by removing mature decadent conifers. Do not harvest trees until they approach decadence or pathological maturity. Do not thin except for visual resource enhancement objectives.

(2541SJ) (01A)

Transportation
System
Management
(L01 & 20)

01 Prohibit motorized vehicle use off Forest System Roads and Trails.

(4766SJ) (01A)

Road
Maintenance
(L19)

01 Maintain roads to accommodate high constant, uninterrupted use.

(4767SJ) (01A)

a. Maintain roads to maintenance levels four or five, depending on the experience level provided at individual developed sites.

(9344SJ) (01A)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that will protect investments and meet recreation management objectives.

(5037SJ) (01A)

a. Wildfire protection levels:
Promptly control wildfires burning at all Fire Intensity Levels.

(9629SJ) (01A)

Fuel Treatment
(P11 thru 14)

01 Maintain fuel conditions which permit fire suppression forces to meet fire protection objectives for the area.

(0113) (01A)

a. Reduce or otherwise treat all fuels so the potential fireline intensity of an area will not exceed 100 BTU's/second/feet (B.I. 38) on 90% of the days during the regular

MANAGEMENT PRESCRIPTION 01A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fuel Treatment
(P11 thru 14)

fire season.

(9632SJ) (01A)

III-92

MANAGEMENT PRESCRIPTION 01A

PREScription FOR MANAGEMENT AREA 1B

(Provides for existing and potential winter sports sites.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis provides for downhill skiing on existing sites and maintains selected inventoried sites for future downhill skiing recreation opportunities. Management integrates ski area development and use with other resource management to provide healthy tree stands, vegetative diversity, forage production for wildlife and livestock, and opportunities for non-motorized recreation.

Visual resources are managed so that the character is one of forested areas interspersed with openings of varying widths and shapes. Facilities may dominate, but harmonize and blend with the natural setting. Harvest methods in forested areas between ski runs is clear-cutting in aspen, and lodgepole pine, shelterwood in interior ponderosa pine and mixed conifers, and group selection in Engelmann spruce-subalpine fir, or as specified in the permittee's site-specific Master Development Plan.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession unless specific vegetation treatment is necessary to meet recreation and visual objectives or for insect and disease control. (00345J) (01B)	
Cultural Resource Management (A02)	01 Allow recreation and non-recreation use of suitable cultural resource properties to the extent that such uses do not conflict with other resource uses. Limit interpretation to low cost developments such as interpretive signing. (05325J) (01B)	
Visual Resource Management (A04)	01 Emphasize visually appealing landscapes (vista openings, rock outcroppings, diversity of vegetation, etc.) (0104) (01B)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of modification. (6204) (01B) b. Apply rehabilitation practices where the above objectives are not currently being met. (6068) (01B)
Recreation Site Construction and Rehabilitation (A05 AND 06)	01 Design and locate improvements on winter sport sites to provide safety to users and to harmonize with the natural environment. (0358) (01B)	a. Follow construction; reconstruction standards specified in the approved Master Development Plan. (6282) (01B)
Management of Developed Recreation Sites (A08, 09, 11 & 13)	01 Provide opportunities for year-round recreation use of the permitted area and facilities. (0359) (01B)	
Range Resource Management (D02)	01 Manage livestock grazing to enhance recreation opportunities in existing and proposed recreation sites. (0110) (01B)	a. Maintain vegetation in fair or better range condition. (6061) (01B)

MANAGEMENT PRESCRIPTION 01B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

02 Utilize low investment management systems such as sea-
son-long or deferred grazing, unless improved management
systems are warranted in conjunction with management of
adjacent areas.

(2043SJ) (01B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types on the permitted area
to enhance visual quality, diversity, and recreation
opportunities, and to provide for a healthy forest
cover in existing and proposed winter sports sites.
(0450) (01B)

02 Manage forested areas between ski runs using the
following harvest methods:

- Clearcut in aspen and lodgepole pine,
- Shelterwood in interior ponderosa pine and mixed
conifer,
- Group selection in Engelmann spruce-subalpine fir,
- or those specified in the permittee's Ski Area
Master Development Plan.
(0760) (01B)

a. Apply harvest treatments to
forest cover types as specified
below or as specified in the
permittee's Ski Area Master
Development Plan where these
plans exist for the area.
(6666) (01B)

b. Silvicultural Standards:
(These standards may be exceeded
on areas managed for old growth)

1. Clearcut:

Forest Cover Type			
	Lodgepole Pine-	Aspen	Other Forest Cover Types
Rotation Age	90-140 yrs	80-120 yrs	100 or more yrs
Growing Stock Level	80-120	N/A	60 to 120
Thinning Cycle	20-30 yrs	N/A	20 to 30 yrs

MANAGEMENT PRESCRIPTION 01B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

2. Two-Step Shelterwood:

Forest Cover Type	
Interior Ponderosa pine & Mixed Conifer	Other Forest Cover Types
Rotation Age	100-160 yrs 100 or more yrs
Growing Stock Level	80-120 60-120
Thinning Cycle	20-30 yrs 20-30
First cut (seed cut): Remove 40 to 70 percent of the basal area or	
Cut to:	BA 25-60 BA 20-60
Second Cut (removal cut): Remove all overstory when regenerated stand meets minimum stocking standards.	

3. Three-Step Shelterwood:

Forest Cover Type	
Interior Ponderosa pine & Mixed Conifer	Other Forest Cover Types
Rotation Age	100-160 yrs 100 or more yrs
Growing	80-120 60-120

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Stock		
Level		
Thinning	20-30 yrs	20-30
Cycle		yrs.
First Cut (preparatory cut):		
Remove 10 to 40 percent of the		
basal area or		
Cut to:	BA 60-80	BA 50-80
Second Cut (seed cut):		
Remove 40 to 50 percent of the		
remaining basal area or		
Cut to:	BA 25-50	BA 20-50
	10-20 yrs	10-20 yrs
	after pre-	after
	paratory	prepara-
	cut	tory cut
Third Cut (removal cut):		
Remove all overstory when		
regenerated stand meets		
minimum stocking standards.		
4. Selection:		
	Forest Cover Type	
	Engelmann	Other
	spruce-	Forest
	subalpine	Cover
	fir	Types
Residual BA	80-120	80-120
Gutting		
Cycle	20-30 yrs.	20-40 yrs
(6294)	(01B)	

III-97

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

03 Timber will be available on a low yield basis, although sustained non-declining timber yield is not planned.

(2539SJ) (01B)

04 Limit timber harvest activities to periods of low recreation use activity or to coincide with ski area construction activity.

(0468) (01B)

05 Utilize firewood material using both commercial and noncommercial methods.

(0147) (01B)

06 The combined water yield effects of type conversion on ski runs and increased on-site water from stand regeneration must be determined. Do not exceed threshold limits of water quality and drainage system stability deterioration.

(0610) (01B)

07 For management purposes of forested areas between ski trails or other permanent openings, a cut-over area is considered an opening until such time as:

- Increased water yield drops below 50 percent of the potential increase;
- Forage and/or browse production drops below 40 percent of potential production;
- Deer and elk hiding cover reaches 60 percent of potential;
- Minimum stocking standards by forest cover type and site productivity are met; and
- The area appears as a young forest rather than a restocked opening, and takes on the appearance of the adjoining characteristic landscape.

(0501) (01B)

a. When the Visual Quality Objective of an area is modification or maximum modification, the regenerated stand shall meet or exceed all of the following characteristics before a cut-over area is no longer considered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or tran-
sects that are stocked.

(6014) (01B)

Transportation
System
Management
(L01 & 20)

01 Prohibit motorized travel off development roads and
trails except for administrative and resource entry.
(476BSJ) (01B)

MANAGEMENT PRESCRIPTION 01B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Design and locate local roads in the permitted area:

- a. To facilitate management of tree stands and wildlife as well as recreation; and
- b. With the minimum of mileage and earthwork.

(0467) (01B)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that will protect investments and meet recreation management objectives.

(50375J) (01B)

a. Wildfire protection levels:

Promptly control wildfires burning at all Fire Intensity Levels.

(96295J) (01B)

Fuel Treatment
(P11 thru 14)

01 Maintain fuel conditions which permit fire suppression forces to meet fire protection objectives for the area.

(0113) (01B)

a. Treat fuels so the fireline intensity on the area will not exceed 100 BTU's/second/feet on 90% of the days during the regular fire season or break up fuel concentrations into blocks no larger than ten acres.

(96335J) (01B)

III-100

PREScription FOR MANAGEMENT AREA 1D

(Provides for utility corridors.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for major oil and gas pipelines, major water transmission and slurry pipelines, electrical transmission lines, and transcontinental telephone lines. Management activities within these linear corridors strive to be compatible with the management goals of the management areas through which they pass.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Require right-of-way clearing and revegetation consistent or compatible with diversity objectives of adjacent management areas. (0038SJ) (01D)	
Visual Resource Management (A04)	01 Design and construct utilities to harmonize with the landscape. (0295) (01D)	a. Use "National Forest Landscape Management", Volume 2-Utilities for principles and concepts. (6153) (01D)
Dispersed Recreation Management (A14 and 15)	01 Manage dispersed recreation opportunities consistent or compatible with adjacent management areas. (0297) (01D)	
Wildlife Habitat Improvement and Maintenance (G02, 04, 05 and 06)	01 Manage wildlife and fish habitat consistent or compatible with adjacent management areas. (0296) (01D)	a. Limit right-of-way clearing width to a maximum of 600 feet to prevent adverse effects on wildlife. (7254SJ) (01D)
Range Resource Management (D02)	01 Manage the range resource consistent or compatible with adjacent management areas. (0298) (01D)	
Silvicultural Prescriptions (E03, 06 & 07)	01 Manage forest cover types consistent or compatible with adjacent management areas. Provide required electrical clearances and minimize the visual impact of the utility right-of-way. (0299) (01D) 02 Utilize firewood material using both commercial and noncommercial methods. (0147) (01D)	

MANAGEMENT PRESCRIPTION 01D

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Rights-of-way
and Land
Adjustments
(J02, 13, 15,
16, 17, and 18)

01 Design, construct and maintain electrical transmission lines in accordance with the rules of the National Electrical Safety Code, ANSI. Unless otherwise indicated on the plan and profile drawings, all construction and clearances of the transmission line shall conform to the latest edition of the National Electrical Safety Code, ANSI issued by the American National Standards Institute.
(0473) (01D)

02 All design, materials and construction, operation, maintenance and termination practices employed in connection with oil pipelines shall be in accordance with safe and proven engineering practices and shall meet or exceed the following:

a. U.S.A. Standard Code for Pressure Piping, ANSI B 31.4, "Liquid Petroleum Transportation system."

b. Department of Transportation Regulations, 49 CFR, Part 195, "Transportation of Liquids by Pipeline".
(0474) (01D)

03 All design, materials and construction, operation, maintenance and termination practices employed in connection with gas pipelines shall be in accordance with safe and proven engineering practices and shall meet or exceed the following:

a. Department of Transportation Regulations, ASME Gas Piping Standards Committee, "Guide for Gas Transmission and Distribution Piping System" (3rd Edition, April 1976).

b. 49 CFR, Part 192, "Transportation of Natural and other Gas by Pipelines: Minimum Federal Safety Standards."
(0475) (01D)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Transportation
System
Management
(LO1 & 20)

O1 Manage the transportation system and travel off
development roads and trails consistent or compatible with
adjacent management areas.

(4780SJ) (O1D)

Fire Planning
and
Suppression
(PO1)

O1 Provide a level of protection from wildfire that is
cost-efficient and that will meet objectives of adjacent
management areas.

(5033SJ) (O1D)

III-104

MANAGEMENT PRESCRIPTION O1D

PREScription FOR MANAGEMENT AREA 2A

(Emphasis is on semi-primitive motorized recreation opportunities.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for semi-primitive motorized recreation opportunities such as snowmobiling, four-wheel driving, and motorcycling both on and off roads and trails. Motorized travel may be restricted or seasonally prohibited to designated routes to protect physical and biological resources.

Visual resources are managed so that management activities are not evident or remain visually subordinate. Past management activities such as historical changes caused by early mining, logging, and ranching may be present which are not visually subordinate but appear to have evolved to their present state through natural processes. Landscape rehabilitation is used to restore landscapes to a desirable visual quality. Enhancement aimed at increasing positive elements of the landscape to improve visual variety is also used.

The harvest method by forest cover type is clearcutting in aspen and lodgepole pine, and shelterwood for all other forest cover types.

Mineral and energy resource activities are generally compatible with goals of this management area subject to appropriate stipulations provided in Management Activities G00 - G07 in Forest Direction.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession in non-commercial forest and non-forest cover types except for Gambel oak. (0040SJ) (02A)	a. Non-commercial and non-forest cover type management: * 1) Gambel Oak: a) Manage 25% of area for oak- brush in blocks up to 20 acres to create a mosaic ap- pearance with an approxima- tion of equal distribution of size classes to favor wildlife management indicator species; deer, elk, bear and green- tailed towhee. b) Manage 75% of the area for natural succession. * These standards and guidelines are applicable only on slopes <60%. (6041SJ) (02A)
	02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions." (0041SJ) (02A)	
Cultural Resource Management (A02)	01 Develop suitable cultural resource properties for public enjoyment. (0568SJ) (02A)	
Visual Resource Management (A04)	01 Design and implement management activities to provide a visually appealing landscape. Enhance or provide more viewing opportunities and increase vegetation diversity in selected areas. (0150) (02A)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of Partial Retention. (6223) (02A) b. FS System travel routes are Sensitivity Level one. (6224) (02A) c. Apply rehabilitation practices

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Visual Resource
Management
(A04)

Dispersed
Recreation
Management
(A14 and 15)

01 Emphasize semi-primitive motorized recreation opportunities. Increase opportunities for primitive road motorized trail use. Specific land areas or travel routes may be closed seasonally or year-round for compatibility with adjacent area management, to prevent resource damage, for economic reasons, to prevent conflicts of use, and for user safety.
(0152) (02A)

02 Manage use to allow low to moderate contact with other groups and individuals.
(0238) (02A)

where the above objectives are not currently being met.
(6068) (02A)

d. Manage visual resources using the above standards in accordance with FSM 2380 and FSH 2309.16 through FSH 2309.25.
(6225) (02A)

a. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).
(6083) (02A)

a. Maximum use and capacity levels are:

-Trail and camp encounters during peak use days are less than 30 other parties per day.

-Trail and area-wide use capacity:

ROS Class - Semi-Primitive
Motorized

Use Level	Very Low	Low	Moderate	High
-----------	----------	-----	----------	------

On Trails				
PAOT/				
mile	2.0	3.0	9.0	11.0

Area-wide				
PAOT/				
acre	.004	.008	.05	.08

Reduce the above use level coefficients as necessary to re-

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

flect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.
(6227) (02A)

03 Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails in alpine shrub and Krummholz ecosystems. Prohibit motorized vehicle use off Forest System roads and trails (except snowmobiles operating on snow) in other alpine, and other ecosystems, where needed to protect soils, vegetation, or special wildlife habitat.
(0154) (02A)

04 Permit undesignated sites in Frissell condition class 1 through 3 where unrestricted camping is permitted.
(0174) (02A)

a. Campsite condition class based upon Frissell, S.S.; Journal of Forestry, May, 1978.
(6278) (02A)

05 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites.
(0175) (02A)

06 Facilities provided include development level 1 and 2 campgrounds, trails suitable for motorized trailbike use, local roads with primitive surface and parking lots at trail heads. Provide signing compatible with intended use.
(0153) (02A)

a. See FSM 2331, FSM 7732, FSH 7709.12 (Trails Handbook), FSH 7109.11a and 11b (Sign Handbook).
(6226) (02A)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Encourage development of private sector recreation oriented support services.
(0161) (02A)

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

01 See the "Diversity on National Forests and National
Grasslands" and "Silvicultural Prescriptions" management
activities for specific vegetation treatment for wildlife
objectives.

(1526SJ) (02A)

02 Favor indicator species through wildlife habitat im-
provement.

(1534SJ) (02A)

a. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 25 snags/10
acres in all forested types. Also
provide for snag replacement.

(7245SJ) (02A)

b. Goshawk:

Prohibit disruptive management
activities within 300 feet of any
occupied raptor nests during the
period May 1 through July 31.

(7231SJ) (02A)

c. Deer, Elk, Turkey, Mallard,
Black Bear and Goshawk:

Provide one water source per sec-
tion where there are no natural
water sources. Use primitive mate-
rials for construction.

(7251SJ) (02A)

Range Resource
Management
(D02)

01 Manage livestock distribution and stocking rates
to be compatible with recreation use. Locate structural
improvements to meet visual quality objectives.

(0158) (02A)

02 Utilize extensive management systems such as season-
long or deferred grazing.

(2031SJ) (02A)

a. Vary utilization standards
with grazing system and ecological
condition. Specify standards in
the allotment management plan.
(6071) (02A)

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
CONTINUATION OF: Range Resource Management (D02)	03 Protect regeneration from livestock damage in areas managed for timber production. (2051SJ) (02A)	a. Exclude livestock from plantations and naturally regenerating areas when utilization of useable forage exceeds 20 percent or when seedling stocking is less than the desired number per acre as shown in Forest Direction under management activity "Reforestation." (7626SJ) (02A)
Range Improvement and Maintenance (D03, 04, 05 and 06)	01 Construct and maintain allotment boundary fences, short drift fences and water developments necessary to implement management systems. Use on-site or rustic materials and mechanical methods compatible with prescription objectives. (2039SJ) (02A)	
Silvicultural Prescriptions (E03, 06 & 07)	01 Manage tree stands using both commercial or noncommercial methods. Enhance visual quality, diversity and insect and disease control. (0159) (02A) 02 Manage forest cover types using the following harvest methods: - Clearcut in aspen and lodgepole, - Shelterwood in interior ponderosa pine, mixed conifer and Engelmann spruce-subalpine fir. (0463) (02A)	a. Apply harvest treatments to forest cover types as specified below on at least 80 % of the forest cover type. Up to 20 percent of the type may be treated using other harvest methods specified in Forest Direction. (6074) (02A) b. Silvicultural Standards: (These standards may be exceeded on areas managed for old growth) 1) Clearcut: * ----- Forest Cover Type ----- Lodgepole Pine Aspen ----- Rota- 90-140 70-90

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

tion Age	Yrs	Yrs
Grow- ing Stock Level	80-140	N/A
Thinning cycle	N/A	N/A
* Does not apply on slopes > 60%. Restrict to blocks < 20 acres in size.		
2) Two-Step Shelterwood:*		
Forest Cover type		
Interior Ponderosa Pine		
Rota- tion Age	100-140 yrs.	
Growing Stock Level	80-120	
Thinning Cycle	20-30 Yrs	
First Cut (seed cut). Cut to BA 30-50		
Second Cut (removal cut) Remove all overstory when re- generated stand meets minimum stocking standards.		
* Does not apply on slopes > 30%. Restrict to units of < 20 acres in size.		

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Extend rotation age to 300 years
on selected trees within the
foreground zone along roads and
trails.

3) Three-Step Shelterwood:*

Forest Cover Type	
	Engelmann spruce- Subalpine Fir & Mixed Conifer
Rotation Age	180-200 Yrs
Growing Stock Level	N/A
Thinning Cycle	N/A
First Cut (preparatory cut). Remove up to 30 percent of the basal area.	
Second Cut (seed cut). Remove 40 to 50 percent of the re- maining basal area or Cut to:	
	BA 60-80 10-20 Yrs after pre- paratory cut
Third Cut (removal cut). Remove all overstory when regenerated stand meets minimum stocking standards.	
* Does not apply on slopes > 60%. Restrict to blocks < 20 acres in size.	

III-112

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(EO3, 06 & 07)

(80555J) (02A)

03 Apply intermediate treatments in interior ponderosa pine forest cover type to maintain growing stock level standards.

(25385J) (02A)

04 Utilize firewood material using both commercial and noncommercial methods.

(0147) (02A)

05 For management purposes, a cut-over area is considered an opening until such time as:

- Increased water yield drops below 50 percent of the potential increase;
- Forage and/or browse production drops below 40 percent of potential production;
- Deer and elk hiding cover reaches 60 percent of potential;
- Minimum stocking standards by forest cover type and site productivity are met; and
- The area appears as a young forest rather than a restocked opening, and takes on the appearance of the adjoining characteristic landscape.

(0500) (02A)

a. When the Visual Quality Objective of an area is partial retention, the re-generated stand shall meet or exceed all of the following characteristics before a cut-over area is no longer considered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/acre)	Tree Height 1/ (% of the adjacent mature stand height)
Inland Ponderosa Pine	190	25
Mixed Conifers	190	25
Lodgepole Pine	150	25
Engelmann Spruce - Sub- alpine fir	150	25

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Aspen	300	25
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%
1/	Applies to trees specified as minimum stocking level.	
2/	Percent of plots or transects that are stocked.	
(6316)	(02A)	

Timber Stand
Improvement
(E05)

01 Control undesirable understory vegetation to favor tree
growth in areas managed for timber production.
(2551SJ) (02A)

a. Ponderosa Pine: Control Gambel
oak in stands on slopes <30% at
10-year intervals starting at a
stand age of 30.
(8060SJ) (02A)

Special Use
Management (Non-
Recreation)
(J01)

01 Permit special uses which are complementary and compat-
ible with the kind and development level of the associated
Forest Service facilities within the area.
(0464) (02A)

a. Reference the ROS Users Guide.
(6230) (02A)

Transportation
System
Management
(L01 & 20)

01 Manage local constant roads for dispersion of recrea-
tionists, hunter access, and pleasure driving.
(4752SJ) (02A)

a. Do not exceed an average open
local road density of 1 mile/square
mile in fourth-order watersheds.
(9349SJ) (02A)

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

02 Manage local intermittent roads to accommodate light use
(SADT 0-20). Close to public use.

(4728SJ) (02A)

01 Construct roads to enhance motorized recreation use, 4x4
vehicles, trail bikes and snowmobiles.

(4753SJ) (02A)

02 Roads will not exceed design guides specified in FSM
7721.3 for local roads.

(4754SJ) (02A)

Road
Maintenance
(L19)

01 Maintain roads to provide quality semi-primitive motor-
ized opportunities and for public safety.

(4755SJ) (02A)

a. Construct all roads with no
gravel support.

(9335SJ) (02A)

a. Maintain local constant roads
to maintenance level three when
used for project activities and to
maintenance level two for general
motorized use.

(9338SJ) (02A)

b. Maintain local intermittent
roads to maintenance level two when
open for project activities.

(9330SJ) (02A)

Trail
System
Management
(L23)

01 Maintain existing motorized routes or construct new
routes needed as part of the transportation system.
Provide loop routes of one-half to one day's travel
time with at least one-half the total route located
within the semi-primitive motorized RDS class and
utilizing primitive local roads and/or trails
suitable for motorized trail bike travel.

(0164) (02A)

a. Do not exceed an average motor-
ized trail density of 4 miles
per square mile on fourth-order
watersheds.

(6094) (02A)

b. Do not exceed an average motor-
ized trail density of 2 miles per
square mile in nonforested areas
of fourth-order watersheds.

(6093) (02A)

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Trail
System
Management
(L23)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types.

(50265J) (02A)

c. Maintain trails to maintenance level three.

(93395J) (02A)

a. Wildfire protection levels in areas managed for timber production:

1) Ponderosa pine on slopes < 30%, with basal area > 40 or stocked, and stand age < 30 years; mixed browse; mixed conifers; Engelmann spruce-subalpine fir; grasslands:

a) Promptly control wildfires burning at all Fire Intensity Levels (FIL's).

2) All ponderosa pine other than above; aspen; pinon pine-juniper; Gambel oak:

a) Confine or contain wildfires burning at FIL's I and II.

b) Effect control of wildfires burning at FIL'S III and higher.

(96385J) (02A)

b. Wildfire protection levels in areas not managed for timber production:

1) Inland ponderosa pine; pinon pine-juniper; Gambel oak; aspen:

a) Confine or contain wildfires burning at Fire Intensity Levels (FIL's) I and II.

b) Effect control of wildfires

MANAGEMENT PRESCRIPTION 02A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fire Planning
and
Suppression
(P01)

burning at FIL'S III and
higher.

2) Mixed browse; mixed conifers;
Engelmann spruce-subalpine fir;
grasslands:

a) Effect control of wildfires
burning at all FIL'S.

(9639SJ) (02A)

III-117

MANAGEMENT PRESCRIPTION 02A

PRESCRIPTION FOR MANAGEMENT AREA 2B

(Emphasis is on rural and roaded-natural recreation opportunities.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for rural and roaded-natural recreation opportunities. Motorized and non-motorized recreation activities such as driving for pleasure, viewing scenery, picnicking, fishing, snowmobiling, and cross-country skiing are possible. Conventional use of highway-type vehicles is provided for in design and construction of facilities. Motorized travel may be prohibited or restricted to designated routes, to protect physical and biological resources.

Visual resources are managed so that management activities maintain or improve the quality of recreation opportunities. Management activities are not evident, remain visually subordinate, or may be dominant, but harmonize and blend with the natural setting. Landscape rehabilitation is used to restore landscapes to a desirable visual quality. Enhancement aimed at increasing positive elements of the landscape to improve visual variety is also used.

The harvest method by forest cover type is clearcutting in aspen and lodgepole pine, shelterwood in interior ponderosa pine, mixed conifer and Engelmann spruce-subalpine fir.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage non-commercial forest and non-forest cover types to meet the standards and guidelines. (0026SJ) (02B)	a. Non-commercial and non-forest cover type management: * 1) Pinon Pine-Juniper: Manage under a 200-year rotation in stands of 10 - 20 acres to create or maintain natural appearing openings. 2) Gambel Oak: Manage 60% of the area for grass to create or maintain natural appearing openings. 3) Mixed Browse: Manage for retention of browse species. 4) Grassland: Manage to retain in parks and grass stands. Retain or enhance viewing opportunities into parks. * These standards and guidelines are applicable only on slopes <60%. (6042SJ) (02B)
	02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions." (0041SJ) (02B)	
Cultural Resource Management (A02)	01 Develop suitable cultural resource properties for public enjoyment. (0548SJ) (02B)	

MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Visual Resource
Management
(A04)

O1 Design and implement management activities to provide a visually appealing landscape. Enhance or provide more viewing opportunities and increase vegetation diversity in selected areas.
(0150) (02B)

a. Do not exceed an Adopted Visual Quality Objective (VQO) of Partial Retention.
(6223) (02B)

b. Arterial and collector roads and trails are Sensitivity Level 1.
(6268) (02B)

c. Manage visual resources using the above standards in accordance with FSM 2380 and FSH 2309.16 through FSH 2309.25.
(6225) (02B)

Dispersed
Recreation
Management
(A14 and 15)

O1 Provide roaded natural or rural recreation opportunities along Forest arterial, collector and local roads which are open to public motorized travel. Manage recreation use to provide moderate to high incidence of contact with other groups and individuals.
Where arterial, collector or local roads or areas are closed to public motorized recreation travel, provide for dispersed non-motorized recreation with a moderate to high incidence of contact with other groups and individuals in a roaded natural or rural setting.
(0614) (02B)

a. Maximum use and capacity levels are:

-Trail and camp encounters during peak use days may exceed 30 other parties per day.

-Trail and area-wide use capacity:

ROS Class - Roaded Natural				
Use Level	Very Low	Moderate	Low	High

On Trails				
PAOT/mile				

Area-wide				
PAOT/acre	.04	.08	1.2	2.5

ROS Class - Rural				
Use Level	Low	Very Low	Moderate	High

On Trails				
PAOT/mile				

Area-wide				

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

PAOT/acre .5 .8 5.0 7.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the RDS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.
(6269) (02B)

b. Close local roads to public use. Designate routes and areas which can be periodically opened to:
- Gathering firewood.
- Operating oversnow vehicles.
(6328) (02B)

02 Permit undesignated sites in Frissell condition class 1 through 3 where unrestricted camping is permitted.
(0174) (02B)

03 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites.
(0175) (02B)

04 Facilities provided include development level 1 and 2 campgrounds, trails suitable for motorized trailbike use, local roads with primitive surface and parking lots at trail heads. Provide signing compatible with intended use.
(0153) (02B)

a. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).
(6083) (02B)

b. See FSM 2331, FSM 7732, FSH 7709.12 (Trails Handbook), FSH 7109.11a and 11b (Sign Handbook).
(6226) (02B)

MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

05 Prohibit motorized travel off system roads and trails except for designated areas, corridors, parking areas and camping areas.

(4769SJ) (02B)

06 Close roads and trails to motorized travel when the surface would be damaged to the degree that resulting runoff into adjacent water bodies would exceed sediment yield threshold limits.

(0616) (02B)

a. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).
(6083) (02B)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Encourage development of private sector recreation oriented support services.

(0161) (02B)

Range Resource
Management
(D02)

01 Manage livestock distribution and stocking rates to be compatible with recreation use. Locate structural improvements to meet visual quality objectives.

(0158) (02B)

02 Utilize extensive management systems such as season-long or deferred grazing.

(2031SJ) (02B)

a. Vary utilization standards with grazing system and ecological condition. Specify standards in the allotment management plan.
(6071) (02B)

03 Protect regeneration from livestock damage.

(0133) (02B)

a. Exclude livestock from plantations and naturally regenerating areas when utilization of useable forage exceeds 20 percent or when seedling stocking is less than the desired number per acre as shown in Forest Direction under management activity "Reforestation."

(7626SJ) (02B)

MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Construct and maintain allotment boundary fences, short drift fences and water developments necessary to implement management systems. Use on-site or rustic materials and mechanical methods compatible with prescription objectives.

(20375J) (02B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage tree stands using both commercial or noncommercial methods. Enhance visual quality, diversity and insect and disease control.

(0159) (02B)

02 Manage forest cover types according to the following objectives:

- a) Interior ponderosa pine on slopes < 30%: Manage to retain or create mature character. Mature stands should have moderate to large diameter trees adequate to maintain an open park-like appearance.
- b) Aspen: Maintain an attractive mix of stands with variety of sizes, heights and ages. Do not convert to conifers.
- c) Mixed Conifer: Manage for a representation of large tree character. Introduce small scale diversity of different age classes.
- d) Engelmann Spruce-Subalpine Fir: Manage to strive for a variety of age class distribution (young to old).

(25435J) (02B)

03 Manage forest cover types using the following harvest methods:

- Clearcut in aspen and lodgepole,
- Shelterwood in interior ponderosa pine, mixed conifer and Engelmann spruce-subalpine fir.

(0463) (02B)

a. Apply harvest treatments to forest cover types as specified below on at least 80 % of the forest cover type. Up to 20 percent of the type may be treated using other harvest methods specified in Forest Direction.

(6074) (02B)

MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

b. Silvicultural Standards:
(These standards may be exceeded on
areas managed for old growth.)

1) Clearcut:*

Forest Cover Type		
	Lodgepole Pine	Aspen
Rotation Age	90-140 Yrs	70-90 Yrs
Growing Stock Level	80-140	N/A
Thinning cycle	20-30 Yrs	N/A

* Does not apply on slopes > 60%.
Restrict to units < 5 acres in
size.

2) Two-Step Shelterwood:*

Forest Cover type	
	Interior Ponderosa Pine
Rotation Age	100-140 yrs.
Growing Stock Level	50-100
Thinning Cycle	20-30 Yrs

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

First Cut (seed cut).
Cut to BA 30-50

Second Cut (removal cut)
Remove all overstory when re-
generated stand meets minimum
stocking standards.

* Does not apply on slopes > 30%.
Restrict to units of < 3 acres
in size.

Extend rotation age to 300 years
on 2 - 5 large trees per acre.

3) Three-Step Shelterwood: *

Forest Cover Type

Engelmann
spruce-
subalpine
fir & Mixed
Conifer

Rota- 180-200
tion Yrs
Age

Growing 110-130
Stock
Level

Thinning 25-35
Cycle

First Cut (preparatory cut).
Remove up to 30 percent of the
basal area.

Second Cut (seed cut). Remove 40
to 50 percent of the remaining
basal area or
Cut to: BA 60-80
10-20 Yrs

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

after pre-
paratory cut

Third Cut (removal cut).
Remove all overstory when re-
generated stand meets minimum
stocking standards.

* Does not apply on slopes > 60%.
Restrict to units < 5 acres in
size.

(B058SJ) (02B)

04 Apply intermediate treatments to maintain growing
stock level standards.

(0140) (02B)

05 Utilize firewood material using both commercial
and noncommercial methods.

(0147) (02B)

06 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (02B)

a. When the Visual
Quality Objective of an area
is partial retention, the re-
generated stand shall meet or
exceed all of the following
characteristics before a cut-
over area is no longer consider-
ed an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Height 1/ (% of the adjacent mature stand height)
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Inland Ponderosa Pine	190	25
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Mixed Conifers	190	25
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MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Lodgepole Pine	150	25
Engelmann Spruce - Sub- alpine fir	150	25
Aspen	300	25
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

- 1/ Applies to trees specified as minimum stocking level.
2/ Percent of plots or transects that are stocked.
(6316) (02B)

Timber Stand
Improvement
(E05)

01 Control undesirable understory vegetation to favor tree growth.
(25275J) (02B)

a. Ponderosa Pine: Control Gambel oak in stands on slopes <30% at 10-year intervals starting at a stand age of 30.

(80605J) (02B)

MANAGEMENT PRESCRIPTION 02B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Special Use
Management (Non-
Recreation)
(J01)

01 Permit special uses which are complementary and compatible with the kind and development level of the associated Forest Service facilities within the area.
(0464) (02B)

a. Reference the ROS Users Guide.
(6230) (02B)

Transportation
System
Management
(L01 & 20)

01 Manage public use of roads with techniques such as, seasonal closure, time of day closures, etc.
(0128) (02B)

02 Manage local constant roads for medium to high use (SADT above 50) and construct to all season standard.

(4770SJ) (02B)

a. Manage the area for a moderate density (one-half to one mile/square mile) of constant roads.

(9333SJ) (02B)

03 Manage local intermittent roads to accommodate light use (SADT 0-20).

(4771SJ) (02B)

a. Close local roads to public use. Designate routes and areas which can be periodically opened to:
- Gathering firewood.
- Operating oversnow vehicles.
(6328) (02B)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Construct roads for dispersion of recreationists and pleasure driving.

(4772SJ) (02B)

a. Construct or reconstruct local constant roads with full gravel support. Abate dust on high use (SADT above 195) roads.

(9345SJ) (02B)

b. Construct local intermittent roads with no gravel support.

(9346SJ) (02B)

Road
Maintenance
(L19)

01 Maintain roads to provide quality motorized recreation opportunities and for public safety.

(4773SJ) (02B)

a. Maintain local constant roads to maintenance levels four and five.

(9347SJ) (02B)

b. Maintain local intermittent roads to maintenance level two when open for project activities.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Road
Maintenance
(L19)

(9330SJ) (02B)

Trail
System
Management
(L23)

01 Maintain existing motorized routes or construct new routes needed as part of the transportation system. Develop loop routes and coordinate them to compliment semi-primitive motorized opportunities in adjacent semi-primitive motorized ROS class areas.
(0439) (02B)

a. On all nonforested areas, motorized trail and local road density is not to exceed 4 miles per square mile.
(6270) (02B)

b. Maintain trails to maintenance levels four and five.

(9348SJ) (02B)

Fire Planning
and
Suppression
(PO1)

01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types.

(5026SJ) (02B)

a. Wildfire protection levels:

Promptly control wildfires burning at all Fire Intensity Levels except in areas managed for permanent openings.

(9629SJ) (02B)

Fuel Treatment
(P11 thru 14)

01 Maintain fuel conditions which permit fire suppression forces to meet fire protection objectives for the area.
(0113) (02B)

a. Reduce or otherwise treat all fuels on areas where wildfires are likely to threaten lives or property so the potential fireline intensity of an area will not exceed 100 BTU's/sec/ft (B.I. 38) on 90% of the days during the regular fire season,

or

Break up continuous fuel concentrations exceeding the above standard into manageable units with fuel breaks or fire lanes.

(9634SJ) (02B)

PREScription FOR MANAGEMENT AREA 3A

(Emphasis is on semi-primitive non-motorized recreation in roaded or non-roaded areas.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for semi-primitive non-motorized recreation in both roaded and unroaded areas. Recreation opportunities such as hiking, horseback riding, hunting, cross-country skiing, etc., are available. Seasonal or permanent restrictions on human use may be applied to provide seclusion for wildlife such as nesting for raptorial birds, big game rearing areas, and mammals (mountain lion, wolverine, etc.) with large home ranges. Visual resources are managed so that management activities are not visually evident or remain visually subordinate.

Investments in compatible resource uses such as livestock grazing, mineral exploration and development, etc., occur; but roads are closed to public use. Commercial and non-commercial tree harvests occur. The harvest method by forest cover type is clearcutting in aspen and lodgepole pine, shelterwood in interior ponderosa pine, Engelmann spruce-subalpine fir and mixed conifers.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession unless specific vegetation treatment is necessary to meet recreation and visual objectives or for insect and disease control. (00345J) (03A)	
Cultural Resource Management (A02)	01 Develop suitable cultural resource properties for public enjoyment. (05685J) (03A)	
Visual Resource Management (A04)	01 Design and implement management activities to provide a visually appealing landscape. Enhance or provide more viewing opportunities and increase vegetation diversity in selected areas. (0150) (03A)	<p>a. Do not exceed an Adopted Visual Quality Objective (VQO) of Partial Retention. (6223) (03A)</p> <p>b. FS System travel routes are Sensitivity Level one. (6224) (03A)</p> <p>c. Apply rehabilitation practices where the above objectives are not currently being met. (6048) (03A)</p> <p>d. Manage visual resources using the above standards in accordance with FSM 2380 and FSH 2309.16 through FSH 2309.25. (6225) (03A)</p>
Dispersed Recreation Management (A14 and 15)	<p>01 Emphasize semi-primitive non-motorized recreation opportunities. Specific land areas or travel routes may be opened seasonally and with specific authorization to accomplish resource management activities. The area is never open for motorized recreation activities except for specifically identified motorized corridors through the area. (05385J) (03A)</p> <p>02 Manage use to allow low to moderate contact with other groups and individuals. (0238) (03A)</p>	<p>a. Prohibit or restrict motorized vehicle use (R2 FSH 2309.26). (6228) (03A)</p> <p>a. Maximum use and capacity: -Trail and camp encounters during peak use days are less than 30 other parties</p>

MANAGEMENT PRESCRIPTION 03A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

per day.				
-Trail and area-wide use capacity:				

ROS Class - Semi-Primitive Nonmotorized				

Use Level	Very Low	Mod- Low	High	

On Trails				
PAOT/ mile	2.0	3.0	9.0	11.0

Area-wide				
PAOT/ acre	.004	.008	.05	.08

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.
(6378) (03A)

03 Provide facilities such as foot and horse trails, single lane local intermittent roads with primitive surface used as trails, development level 1 and 2 campgrounds, and necessary signing.

(0394) (03A)

04 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites.

(0175) (03A)

a. See FSM 2331, FSM 7732, FSH 7709.12 (Trails Handbook), FSH 7109.11a and 11b (Sign Handbook).
(6226) (03A)

MANAGEMENT PRESCRIPTION 03A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Encourage development of private sector recreation
oriented support services.
(0161) (03A)

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

01 Maintain wildlife habitat effectiveness. Permanent
openings may be employed. Reduce disturbance to wildlife
so that no significant long-term negative wildlife effects
result.
(0155) (03A)

02 Provide deer and elk cover.
(0612) (03A)

03 Favor indicator species through wildlife habitat im-
provement.

(1534SJ) (03A)

a. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 25 snags/10
acres in all forested types. Also
provide for snag replacement.

(7245SJ) (03A)

b. Deer, Elk, Turkey, Mallard,
Black Bear and Goshawk:

Provide one water source per sec-
tion where there are no natural
water sources. Use primitive mate-
rials for construction.

(7251SJ) (03A)

Range Resource
Management
(D02)

01 Manage livestock distribution and stocking rates
to be compatible with recreation use. Locate structural
improvements to meet visual quality objectives.
(0158) (03A)

02 Utilize extensive management systems such as season-
long or deferred grazing.

(2031SJ) (03A)

a. Vary utilization standards
with grazing system and ecological
condition. Specify standards in
the allotment management plan.
(6071) (03A)

MANAGEMENT PRESCRIPTION 03A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Construct and maintain allotment boundary fences, short
drift fences and water developments necessary to implement
management systems. Use on-site or rustic materials and
mechanical methods compatible with prescription objectives.

(20395J) (03A)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage tree stands using both commercial or
noncommercial methods. Enhance visual quality, diversity
and insect and disease control.

(0159) (03A)

02 Manage forest cover types using the following harvest
methods:

- Clearcut in aspen and lodgepole,
- Shelterwood in interior ponderosa pine, mixed conifer
and Engelmann spruce-subalpine fir.

(0463) (03A)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.

(6074) (03A)

b. Silvicultural Standards:
(These standards may be exceeded
on areas managed for old growth)

1. Clearcut:

	Forest Cover Type		
	Lodgepole Pine-	Aspen	Other Forest Cover Types
Rotation Age	90-140 yrs	80-120 yrs	100 or more yrs
Grow- ing	80-140	N/A	60 to 120

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Stock
Level

Thinning 20-30 N/A 20 to
Cycle yrs 30 yrs

2. Two-Step Shelterwood:

Forest Cover Type

Engelmann spruce-sub-
alpine fir,
Interior
Ponderosa
Pine & Mixed
Conifer
Other
Forest
Cover
Types

Rota- 100-180 yrs 100 or
tion more yrs
Age

Growing 80-160 60-120
Stock
Level

Thinning 20-30 yrs 20-30 yrs
Cycle

First Cut (Seed cut):
Remove 40 to 70 percent of the
basal area or

Cut to: BA 25-60 BA 20-60

Second Cut (removal cut):
Remove all overstory when
regenerated stand meets
minimum stocking standards.

3. Three-Step Shelterwood:

Forest Cover Type

III-135

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Englemann
Spruce-Sub-
alpine fir
Interior
Ponderosa
Pine & Mixed
Conifer
Other
Forest
Cover
Types

Rotation Age	100-180 yrs	100 or more yrs
Growing Stock Level	80-160	60-120
Thinning Cycle	20-30 yrs	20-30 yrs
First Cut (preparatory cut): Remove 10 to 40 percent of the basal area or Cut to: BA 60-80 BA 50-80		
Second Cut (seed cut): Remove 40 to 50 percent of the remaining basal area or Cut to: BA 25-50 BA 20-50 10-20 yrs 10-20 yrs after pre- after paratory cut preparatory cut		
Third Cut (removal cut): Remove all overstory when regenerated stand meets minimum stocking standards.		
(6300)	(03A)	

03 Timber will be available on a low yield basis, although sustained non-declining timber yield is not planned.

(25375J) (03A)

MANAGEMENT PRESCRIPTION 03A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

04 Apply intermediate treatments to maintain growing
stock level standards.

(0140) (03A)

05 Utilize firewood material using both commercial
and noncommercial methods.

(0147) (03A)

06 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (03A)

a. When the Visual
Quality Objective of an area
is partial retention, the re-
generated stand shall meet or
exceed all of the following
characteristics before a cut-
over area is no longer consid-
ered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Height 1/ (% of the adjacent mature stand height)
Inland Ponderosa Pine	190	25
Mixed Conifers	190	25
Lodgepole Pine	150	25
Engelmann Spruce - Sub- alpine fir	150	25
Aspen	300	25
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/ (Percent)

III-137

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES	
CONTINUATION OF: Silvicultural Prescriptions (E03, 06 & 07)		Inland Ponderosa Pine	30 70%
		Mixed Conifers	30 75%
		Lodgepole Pine	30 75%
		Engelmann Spruce- Subalpine fir	30 75%
		Aspen	30 75%
		1/ Applies to trees specified as minimum stocking level.	
		2/ Percent of plots or transects that are stocked.	
		(6316) (03A)	
Water Resource Improvement and Maintenance (F05 and 06)	01 Permanent openings may be employed to enhance water production. (0497) (03A)		
Special Use Management (Non- Recreation) (J01)	01 Permit special uses which are complementary and compatible with the objectives of the management area and which do not change the ROS classification. (0395) (03A)		
	02 Permit special uses which are complementary and compat- ible with the kind and development level of the associated Forest Service facilities within the area. (0464) (03A)	a. Reference the ROS Users Guide. (6230) (03A)	
Local Road Construction and Reconstruction (L11, 12, & 13)	01 Local roads may be constructed for non-recreation purposes. (4757SJ) (03A)	a. Construct all roads with no gravel support. (9335SJ) (03A)	

MANAGEMENT PRESCRIPTION 03A

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
CONTINUATION OF: Local Road Construction and Reconstruction (L11, 12, & 13)	02 Close local roads to public motorized use except for specifically identified motorized corridors through the area. (4792SJ) (03A)	
Road Maintenance (L19)	01 Maintain roads to minimum level necessary for adminis- tration and resource management entry. (4758SJ) (03A)	a. Maintain local intermittent roads to maintenance level two when open for project activities. (9330SJ) (03A) b. Maintain local roads to level one during periods when access for resource utilization is not requir- ed. (9340SJ) (03A)
Trail System Management (L23)	01 Emphasize trails for hikers, cross-country skiers and horse use. (4788SJ) (03A)	a. Maintain trails to maintenance levels three and four. (9341SJ) (03A)
Fire Planning and Suppression (P01)	01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types. (5026SJ) (03A)	a. Wildfire protection levels: 1) Inland ponderosa pine; pinon pine-juniper; Gambel oak; aspen: a) Confine or contain wildfires burning at Fire Intensity Levels (FIL's) I and II. b) Effect control of wildfires burning at FIL'S III and higher. 2) Mixed browse; Mixed conifers; Engelmann spruce-subalpine fir; Grasslands: a) Effect control of wildfires burning at all FIL'S. (9631SJ) (03A)

PREScription FOR MANAGEMENT AREA 4B

(Emphasis is on habitat for management indicator species.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is on the habitat needs of one or more management indicator species. Species with compatible habitat needs are selected for an area. The goal is to optimize habitat capability, and thus numbers of the species. The prescription can be applied to emphasize groups of species, such as early succession dependent or late succession dependent, in order to increase species richness or diversity.

Vegetation characteristics and human activities are managed to provide optimum habitat for the selected species, or to meet population goals jointly agreed to with the State Fish and Wildlife agencies. Tree stands are managed for specific size, shape, interspersion, crown closure, age, structure, and edge contrast. Grass, forb, and browse vegetation characteristics are regulated. Rangeland vegetation is managed to provide needed vegetation species composition and interspersed grass, forb, and shrub sites or variety in age of browse plants. Fish habitat improvement treatments are applied to lakes and streams to enhance habitats and increase fish populations.

Recreation and other human activities are regulated to favor the needs of the designated species. Roaded-natural recreation opportunities are provided along Forest arterial and collector roads. Local roads and trails are either open or closed to public motorized travel. Semi-primitive motorized recreation opportunities are provided on those local roads and trails that remain open; semi-primitive non-motorized opportunities are provided on those that are closed. A full range of tree harvest methods and rangeland vegetation treatment methods are available. Investments in other compatible resource uses may occur but will be secondary to habitat requirements. Management activities may dominate in foreground and middleground, but harmonize and blend with the natural setting.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage non-commercial forest and non-forest cover types to meet the standards and guidelines. (0026SJ) (04B)	<p>a. Non-commercial and non-forest cover type management:</p> <p>1) Pinon Pine-Juniper:</p> <p>a) On slopes < 60%:</p> <p>Manage under a 200-year rotation in stands up to 40 acres distributed evenly throughout the type to favor wildlife management indicator species; deer and elk. Seed with forage species.</p> <p>b) On slopes > 60%:</p> <p>Manage for natural succession to favor wildlife management indicator species; deer and elk.</p> <p>2) Gambel Oak (Includes ponderosa pine sites which are presently non-stocked):</p> <p>a) On slopes < 60%:</p> <p>(1) Manage 50% to 70% of the area for oakbrush under a 200-year rotation with an approximation of equal distribution of size classes to favor wildlife management indicator species; deer, elk, bear, and green-tailed towhee. Protect largest diameter oak in 1 to 3-acre patches up to 10% of area.</p> <p>(2) Manage 30% to 50% of the area for grass to favor wildlife management indicator species; elk. Seed</p>

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

with forage species.

b) On slopes > 60%:

Manage for natural succession
to favor wildlife management
indicator species; deer and
elk.

3) Mixed Browse:

On all slopes, manage under a
100-year rotation to strive for
a variety of age class distri-
bution from young to mature to
favor wildlife management indi-
cator species; deer, elk. Plant
additional browse species.

4) Grassland:

On all slopes, manage to retain
in forage to favor wildlife
management indicator species;
elk, and for livestock. Reseed
with forage species.

(602BSJ) (04B)

02 Manage commercial forest cover types to meet diversity
objectives through harvest treatments specified under
management activity "Silvicultural Prescriptions."

(0041SJ) (04B)

Cultural
Resource
Management
(A02)

01 Allow recreation and non-recreation use of suitable
cultural resource properties to the extent that such uses do
not conflict with wildlife requirements. Limit interpreta-
tion to low cost developments such as interpretive signing.

(0530SJ) (04B)

Visual Resource
Management
(A04)

01 Design and implement management activities to
blend with the natural landscape.
(0332) (04B)

a. Do not exceed an Adopted
Visual Quality Objective (VQO)
of modification.
(6267) (04B)

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Dispersed
Recreation
Management
(A14 and 15)

O1 Manage human recreational activities so they
do not conflict with habitat needs of selected indicator
species.
(0343) (04B)

O2 Provide roaded natural recreation opportunities as an
overall objective. Both semi-primitive motorized and non-
motorized opportunities will be available until planned
resource activities are implemented.

(0527SJ) (04B)

a. Maximum Use and Capacity
Levels are:

Recreation use and capacity
range during the snow-free
period (PAOT/acre):

Trail use and capacity range
(PAOT/mile of trail):

Class	Capacity Range*			
	Very Low	Moderate	High	
ROS Class - Semi-Primitive Non-motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Semi-Primitive Motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Roaded Natural				
On Trails				

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.04	.08	1.2	2.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the RDS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.

* VERY LOW applies to alpine.

LOW applies to rock, mtn. grass and clearcuts 1-20 years old.

MODERATE applies to mtn. grass, PP size class 9, 8 and 7, DF size class 9, 8 and 7, Aspen size class 9, SF size class 7, shelterwood cuts 90-120 years old, selection cuts 1-20 years old and clearcuts 80-120 years old.

HIGH applies to SF size class 9 and 8, Aspen size class 8 and 7 and clearcuts 20-80 years old.

(6426SJ) (04B)

b. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).
(6083) (04B)

c. See FSM 2331, FSM 7732, FSH 7709.12 (Trails Handbook), FSH 7109.11a

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

and 11b (Sign Handbook).
(6226) (04B)

03 Permit undesignated sites in Frissell condition class 1 through 3 where unrestricted camping is permitted.
(0174) (04B)

04 Manage site use and occupancy to maintain sites with- in Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites.
(0175) (04B)

05 Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails in alpine shrub and Krummholz ecosystems. Prohibit motorized vehicle use off Forest System roads and trails (except snowmobiles operating on snow) in other alpine, and other ecosystems, where needed to protect soils, vegetation, or special wild- life habitat.
(0154) (04B)

06 Restrict use to resolve people/wildlife conflicts, favoring wildlife in such conflicts.

(0531SJ) (04B)

Wildlife and
Fish Resource
Management
(001)

01 Manage for habitat needs of management indicator species.
(0340) (04B)

a. Maintain habitat capability at a level at least 80 percent of potential capability.
(6261) (04B)

02 Emphasis on species commonly hunted, fished, or trapped will follow species priorities established by States.
(0338) (04B)

a. Maintain at least 90 percent of the habitat needed to support the State population goals for each species.
(6260) (04B)

03 Maintain hiding cover for elk and deer, where present.
(0341) (04B)

a. Maintain, along 75 per- cent of all arterial and collector road edges cover that hides 90 percent of an adult standing deer or elk from human

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife and
Fish Resource
Management
(CQ1)

view at a distance at 200 feet
from the road.
(6191) (04B)

b. In diversity units dominated
by forested ecosystems, maintain
a minimum of 50 percent of the
diversity unit in deer or elk
hiding cover. This hiding cover
should be well distributed over
the unit. Maintain 30 percent
of the diversity unit in thermal
cover (winter or spring-summer).
Hiding cover can be used to meet
thermal cover requirements if
they indeed coincide biolog-
ically.
(6334) (04B)

Wildlife
Habitat
Improvement and
Maintenance
(C02, 04, 05
and 06)

01 See the "Diversity on National Forests and National
Grasslands" and "Silvicultural Prescriptions" management
activities for specific vegetation treatment for wildlife
objectives.

(1526SJ) (04B)

02 Intensively manage for wildlife habitats. Favor indica-
tor species through resource management activities.

(1529SJ) (04B)

a. Deer, Elk, and Bear:

- 1) Restrict disruptive human activ-
ity in calving and fawning areas
during May, June and July.
- 2) Maintain a wildlife movement
corridor at least 600 feet wide
and capable of hiding 90 percent
of an elk or deer at 200 feet in
each one-half square mile where
vegetation treatment projects
occur.

(7237SJ) (04B)

b. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 25 to 30

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

snags/10 acres in all forested
types. Also provide for snag re-
placement.

(7238SJ) (04B)

c. Merriam's Turkey

- 1) Protect three turkey roost tree
clumps/section in all ponderosa
pine and mixed conifer sale
areas, if available. Where de-
ficient, designate four clumps
of the largest DBH presently
available for future use. The
minimum size of a clump is to be
one-tenth acre.
- 2) Provide two turkey food stations
per four square miles in known
winter concentration areas.
- 3) Construct four five-acre live-
stock exclosures/section in
known turkey nesting habitat.
- 4) Provide additional water sources
as necessary in deficient low
elevation areas to bring the
total water sources up to
three/section.

(7239SJ) (04B)

d. Abert's Squirrel

Protect or provide for one Abert's
squirrel nest tree clump (0.1 acre
of 9" to 22" DBH ponderosa pine
with a basal area of 180 to 220 and
an interlocking canopy)/two acres
on all ponderosa pine sale areas.

(7240SJ) (04B)

e. Pine Marten:

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

Within spruce-fir sale areas on
on pine marten habitat, retain at
least 20 percent of the area in old
growth timber (200+ years) with a
canopy closure greater than 30 per-
cent. Where the canopy is totally
eliminated, the opening should not
be more than 300 feet wide.

(7241SJ) (04B)

f. Goshawk:

Prohibit disruptive management
activities within 300 feet of any
occupied raptor nests during the
period May 1 through July 31.

(7231SJ) (04B)

g. Merriam's Turkey, Deer Mouse,
Sharptail Grouse, Mallard, and
Green-tailed Towhee:

- 1) Construct one brush pile (10'x
20'x4') every three acres in
those sale areas where naturally
occurring ground litter has been
drastically reduced.
- 2) Fence one-third of the area of
all earthen constructed live-
stock reservoirs to protect
lacustrine nesting habitat for
small non-game birds and mam-
mals.

(7242SJ) (04B)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range Resource
Management
(D02)

O1 Manage suitable vegetation types for livestock production, with the intent to utilize available forage and maintain forage vigor, while not degrading wildlife habitat. Reduce the number or season of use for permitted livestock where needed to provide sufficient forage for wildlife, especially on big game winter range.

(20345J) (04B)

a. On big game winter range, livestock will be moved or grazing not allowed when livestock and wild herbivores allowable forage use by grazing system and range type exceeds the following:

1) Rest-rotation system:

Use by range type:

-Mainly seed reproduction:
(Bunchgrass, plains grass-
land, foothills shrub and
alpine range types):

25-30 percent on heavy use
pastures.

15-25 percent on light use
pastures.

-Mainly vegetative
reproduction (meadow, sand-
hill prairie, bluegrass
bottoms, and aspen range
types):

Bluegrass: maximum of 50-60
percent; others, 30-35 per-
cent on heavy use pastures,
15-20 percent on light use
pastures.

2) Deferred Rotation System:

Use by range type:

-Mainly seed reproduction:
15-20 percent on all
pastures.

-Mainly vegetative reproduc-
tion:
20-25 percent on all
pastures.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

3) Rotation System

Use by range type:

-Mainly seed reproduction:
Max. of 20-30 percent on
last pastures;
Max. of 10-20 percent on
first used pasture.

-Mainly vegetative repro-
duction:
Max. of 25-35 percent on
last used pasture.
Max. of 15-25 percent on
first used pasture.

4) Continuous System (Grazing same
time and place every year):

Use by range type:

-Mainly seed reproduction:

Use by Condition Class on Key Area				
Season	Good and Excellent	Fair	Poor	Very Poor
Full Grazing Season or Spring	5- 10%	0	0	0
Summer	10- 15%	0- 5%	0	0
Fall and/or Winter	20- 25%	10- 15%	0- 5%	0

-Mainly vegetative reproduc-
tion:

III-150

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

Same as primary seed repro-
duction except increase
utilization by 10% on the
bluegrass.

5) Alternate Years System:

Use by range type on key areas:

-Mainly seed reproduction:

Condition Class on Key Area	Use
Good-Excellent	25-30%
Fair	15-20%
Poor	0-5%
Very Poor	0

-Mainly vegetative reproduc-
tion:

Condition Class on Key Area	Use
Good-Excellent	30-35%
Fair	20-25%
Poor	5-10%
Very Poor	0-10%

Bluegrass 50-60% on good or
better condition and same
proper use percent for fall
and lower as above.

(7632SJ) (04B)

02 Implement rotation grazing systems.
(041B) (04B)

a. Vary utilization standards
with grazing system and ecological
condition. Specify standards in
the allotment management plan.
(6071) (04B)

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

03 Protect regeneration from livestock damage.
(0133) (04B)

a. Exclude livestock from plantations and naturally regenerating areas when utilization of useable forage exceeds 20 percent or when seedling stocking is less than the desired number per acre as shown in Forest Direction under management activity "Reforestation."

(7626SJ) (04B)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Structural range improvement should be designed to benefit wildlife and livestock.
(0416) (04B)

a. Structural improvements will not adversely affect big game movement (FSH 2209.22).
(6247) (04B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types to provide variety in stand sizes, shape, crown closure, edge contrast, age structure and interspersation.
(0345) (04B)

02 Manage forest cover types using the following harvest methods:

- Clearcut in aspen.
- Shelterwood in interior ponderosa pine, mixed conifer and Engelmann spruce-subalpine fir.

(2526SJ) (04B)

a. Apply harvest treatments to forest cover types as specified below on at least 80 % of the forest cover type. Up to 20 percent of the type may be treated using other harvest methods specified in Forest Direction.

(6074) (04B)

b. Silvicultural Standards:
(These standards may be exceeded on areas managed for old growth.)

1) Clearcut:*

Forest Cover Type

Lodgepole

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

	Pine	Aspen
Rotation Age	90-140 Yrs	70-90 Yrs
Growing Stock Level	80-120	N/A
Thinning cycle	20-30 Yrs	N/A
* Does not apply on slopes > 60%		
2) Two-Step Shelterwood:*		
	Forest Cover type	
	Interior Ponderosa Pine	
Rotation Age	100-140 yrs. on 80% of type. 200 + yrs. on 20% of type.	
Growing Stock Level	80-120 on 80% of area. 160-180 on 20% of area.	
Thinning Cycle	20-30 Yrs	
First Cut (seed cut). Cut to	BA 30-50	
Second Cut (removal cut)	Remove all overstory when regenerated stand meets minimum stocking standards.	

III-153

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

* Does not apply on slopes > 30%

3) Three-Step Shelterwood: *

Forest Cover Type	
	Engelmann spruce- Subalpine Fir & Mixed Conifer
Rotation Age	180-200 Yrs
Growing Stock Level	110-130
Thinning Cycle	25-35 Yrs
First Cut (preparatory cut). Remove up to 30 percent of the basal area.	
Second Cut (seed cut). Remove 40 to 50 percent of the remaining basal area or Cut to: BA 60-80 10-20 Yrs after pre- paratory cut	
Third Cut (removal cut). Remove all overstory when regenerated stand meets minimum stocking standards.	

* Does not apply on slopes > 60%

(8041SJ) (04B)

III-154

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

03 Apply intermediate treatments to maintain growing
stock level standards.

(0140) (04B)

04 Utilize firewood material using both commercial
and noncommercial methods.

(0147) (04B)

05 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (04B)

a. When the Visual Quality
Objective of an area is modifi-
cation or maximum modification,
the regenerated stand shall meet
or exceed all of the following
characteristics before a cut-
over area is no longer considered
an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/ 2/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/

III-155

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or tran-
sects that are stocked.

(6014) (04B)

Reforestation
(E04)

01 Supplement natural regeneration in some areas to compen-
sate for domestic grazing damage.

(2528SJ) (04B)

Timber Stand
Improvement
(E05)

01 Control undesirable understory vegetation to favor
tree growth.

(2527SJ) (04B)

a. Ponderosa Pine: Control Gambel
oak in stands on slopes <30% at
10-year intervals starting at a
stand age of 30.

(8060SJ) (04B)

Transportation
System
Management
(L01 & 20)

01 Manage road use to provide for habitat needs of
management indicator species, including road closures
and area closures, and to maintain habitat effectiveness.
(0342) (04B)

MANAGEMENT PRESCRIPTION 04B

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
CONTINUATION OF: Transportation System Management (L01 & 20)	02 Manage local constant roads to accomodate medium - light seasonal use (SADT 10-50). Regulate seasonal public use by closure if roadbed damage will occur and where travel conflicts with natural wildlife movements. (4737SJ) (04B)	a. Manage the area for a moderate density (one-half to one mile/ square mile) of constant roads. (9333SJ) (04B)
	03 Manage local intermittent roads to accommodate light use (SADT 0-20). Close to public use. (4728SJ) (04B)	
Local Road Construction and Reconstruction (L11, 12, & 13)	01 Construct transportation facilities to provide maximum economy of timber harvest and safety for the public while giving priority consideration to wildlife needs. Avoid winter range areas and unique wildlife habitats. (4738SJ) (04B)	a. Construct or reconstruct local constant roads with gravel support needed for timber operations and hauling. (9332SJ) (04B) b. Construct local intermittent roads with no gravel support unless needed to extend logging seasons. (9328SJ) (04B)
Road Maintenance (L19)	01 Maintain roads for a mix of resource uses and public safety. (4742SJ) (04B)	a. Maintain local constant roads to maintenance level three. (9327SJ) (04B) b. Maintain local intermittent roads to maintenance level two when open for project activities. (9330SJ) (04B)
Trail System Management (L23)	01 Provide trails for cross-country skiing, snowmobile, foot, and horse travel where people/wildlife conflicts do not exist. (4740SJ) (04B)	a. Maintain trails to maintenance level two. (9331SJ) (04B)

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Fire Planning and Suppression (P01)	01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types. (5026SJ) (04B)	a. Wildfire protection levels: 1) Pinon pine-juniper, gambel oak, grasslands, aspen. a) Confine or contain wildfires burning at Fire Intensity Levels (FIL) I and II. b) Effect control of wildfires burning at FIL's III and higher. 2) Mixed browse, mixed conifers, Engelmann spruce and subalpine fir. a) Promptly control wildfires burning at all FIL's. 3) Inland ponderosa pine. a) When stand age is < 30 years, promptly control wildfires burning at all FIL's. b) When stand age is > 30 years, confine or contain wildfires burning at FIL's I and II; effect control of wildfires burning at FIL's III and higher. (9626SJ) (04B)
Fuel Treatment (P11 thru 14)	01 Maintain fuel conditions which permit fire suppression and prescribed fire to maintain habitat needed for selected species or species population levels. (0344) (04B)	

PREScription FOR MANAGEMENT AREA 5B

(Emphasis is on big game winter range in forested areas.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is on forage and cover on winter ranges. Winter habitat for deer, elk, bighorn sheep, and mountain goats is emphasized. Treatments to increase forage production or to create and maintain thermal and hiding cover for big game are applied. Tree stand treatments can be clearcut, shelterwood, single tree selection or group selection. Commercial and non-commercial stand treatments occur. Specific cover-opening ratios, and stand designs are maintained. Treatments to grass, forb, browse, and non-commercial tree species include seeding, planting, spraying, burning, falling and mechanical chopping or crushing. A variety of browse age classes are maintained. Continuous forest cover is maintained on some sites.

Investments in compatible resources occur. Livestock grazing is compatible but is managed to favor wildlife habitat. Structural range improvements benefit wildlife. Management activities are not evident, remain visually subordinate, or dominate in the foreground and middleground but harmonize and blend with the natural setting.

New roads other than short-term temporary roads are located outside of the management area. Short-term roads are obliterated within one season after intended use. Existing local roads are closed and new motorized recreation use is managed to prevent unacceptable stress on big game animals during the primary big game use season.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES

GENERAL DIRECTION

STANDARDS & GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

01 Manage non-commercial forest and non-forest cover types
to meet the standards and guidelines.

(00268J) (05B)

a. Non-commercial and non-forest
cover type management:

1) Pinon Pine-Juniper:

a) On slopes < 60%:

Manage under a 200-year ro-
tation in stands up to 40
acres distributed evenly
throughout the type to favor
wildlife management indicator
species; deer and elk. Seed
with forage species.

c) On slopes > 60%:

Manage for natural succession
to favor wildlife management
indicator species; deer and
and elk. Spot burn to im-
prove forage.

2) Gambel Oak (Includes ponderosa
pine sites which are presently
nonstocked):

a) On slopes < 60%:

(1) Manage 70% of the area
for oakbrush under a 200-
year rotation with an
approximation of equal
distribution of size
classes to favor wildlife
management indicator
species; deer, elk, bear
and green-tailed towhee.
Protect largest diameter
oak in 1 to 3-acre patches
up to 10% of area.

(2) Manage 30% of the area for
grass to favor wildlife
management indicator

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

species; elk. Seed with
forage species.

b) On slopes > 60%:

Manage for natural succession
to favor wildlife management
indicator species; deer and
elk. Spot burn to improve
forage.

3) Mixed Browse:

On all slopes, manage under a
100-year rotation to strive for
a variety of age class distri-
bution from young to mature to
favor wildlife management indi-
cator species; deer, elk. Plant
additional browse species.

4) Grassland:

a) On slopes:

On all slopes, manage to re-
tain in forage to favor wild-
life management indicator
species; elk, and for live-
stock. Reseed with forage
species.

(6032SJ) (05B)

02 Manage commercial forest cover types to meet diversity
objectives through harvest treatments specified under
management activity "Silvicultural Prescriptions."

(0041SJ) (05B)

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Cultural
Resource
Management
(A02)

01 Allow recreation and non-recreation use of suitable cultural resource properties to the extent that such uses do not conflict with wildlife requirements. Limit interpretation to low cost developments such as interpretive signing.

(0530SJ) (05B)

Visual Resource
Management
(A04)

01 Design and implement management activities to blend with the natural landscape.

(0332) (05B)

a. Do not exceed an Adopted Visual Quality Objective (VQO) of modification.
(6267) (05B)

Management of
Developed
Recreation Sites
(A08, 09, 11 &
13)

01 Design, construct and operate only those developed sites which are needed to meet summer season management objectives, and are appropriate for the established ROS designation. Close all developed sites during the winter management season.

(0652) (05B)

Dispersed
Recreation
Management
(A14 and 15)

01 Restrict use to resolve people/wildlife conflicts, favoring wildlife in such conflicts.

(0533SJ) (05B)

02 Provide roaded natural recreation opportunities as an overall objective. Both semi-primitive motorized and non-motorized opportunities will be available until planned resource activities are implemented.

(0527SJ) (05B)

a. Maximum Use and Capacity Levels are:

Recreation use and capacity range during the snow-free period (PAOT/acre):

Trail use and capacity range (PAOT/mile of trail):

Class	Capacity Range*			
	Very Low	Low	Mod-ate	High
ROS Class	Semi-Primitive			
	Non-motorized			

On Trails	2.0	3.0	9.0	11.0
PAOT/mile				
Area-wide				

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

PAOT/acre	.004	.008	.05	.08
RQS Class - Semi-Primitive				
Motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
RQS Class - Roaded Natural				
On Trails				
PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.04	.08	1.2	2.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the RQS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the bio-physical resources will occur.

* VERY LOW applies to alpine.

LOW applies to rock, mtn. grass and clearcuts 1-20 years old.

MODERATE applies to mtn. grass, PP size class 9, 8 and 7, DF size class 9, 8 and 7, Aspen size class 9, SF size class 7, shelterwood cuts 90-120 years old, selection cuts 1-20 years old and clearcuts 80-120 years old.

HIGH applies to SF size class 9

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

03 Manage winter use for very low or low densities.
Close areas to human use to the degree necessary in
winter to prevent disturbance of wildlife.
(0754) (05B)

Wildlife and
Fish Resource
Management
(G01)

01 Provide big-game forage and cover, and habitat.
(0310) (05B)

and 8, Aspen size class 8 and 7
and clearcuts 20-80 years old.

(6426SJ) (05B)

b. Specify off-road vehicle
restrictions based on ORV
use management (FSM 2355,
R2 Supp. 88).
(6083) (05B)

c. See FSM 2331, FSM 7732,
FSH 7709.12 (Trails
Handbook), FSH 7109.11a
and 11b (Sign Handbook).
(6226) (05B)

d. Prohibit open fires when the
occurrence of fire rings exceeds
Frissell Class 1 site conditions
on 10 percent or more of the
known campsites.
(6330) (05B)

a. Close management area to
cross-country ski trail de-
velopment and to snowmobile
use.
(6662) (05B)

b. Do not provide parking or
trail head facilities during
winter.
(6664) (05B)

a. Maintain at least 30 per-
cent of the area in created
or natural openings.
(6177) (05B)

b. Do not eliminate presence
of any browse species.
(6168) (05B)

c. Provide thermal cover for
elk or deer on at least 20

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife and
Fish Resource
Management
(G01)

percent of the area.
(6179) (05B)

d. Maintain, along 75 per-
cent of all arterial and
collector road edges cover
that hides 90 percent of an adult
standing deer or elk from human
view at a distance at 200 feet
from the road.
(6191) (05B)

e. In diversity units dominated
by forested ecosystems, maintain
a minimum of 50 percent of the
diversity unit in deer or elk
hiding cover. This hiding cover
should be well distributed over
the unit. Maintain 30 percent
of the diversity unit in thermal
cover (winter or spring-summer).
Hiding cover can be used to meet
thermal cover requirements if
they indeed coincide biolog-
ically.
(6334) (05B)

f. Maintain habitat
effectiveness during winter
of at least 90 percent.
(6171) (05B)

g. Maintain habitat capability
at a level at least 80 percent
of potential capability.
(6261) (05B)

h. Maintain at least 30
percent of shrub plants in
mature age, and at least 10
percent in young stage.
(6166) (05B)

i. Maintain at least two shrub
species on shrub lands capable
of growing two or more shrub

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife and
Fish Resource
Management
(C01)

species.
(6167) (05B)

Wildlife
Habitat
Improvement and
Maintenance
(C02, 04, 05
and 06)

01 See the "Diversity on National Forests and National
Grasslands" and "Silvicultural Prescriptions" management
activities for specific vegetation treatment for wildlife
objectives.

(1526SJ) (05B)

02 Design management activities to favor indicator species
endemic to particular habitat types with emphasis on forage
and cover on key winter ranges for deer and elk.

(1531SJ) (05B)

a. Deer, Elk, and Bear:

1) Restrict disruptive human activ-
ity in calving and fawning areas
during May, June and July.

2) Maintain a wildlife movement
corridor at least 600 feet wide
and capable of hiding 90 percent
of an elk or deer at 200 feet in
each one-half square mile where
vegetation treatment projects
occur.

(7237SJ) (05B)

b. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 25 to 30
snags/10 acres in all forested
types. Also provide for snag re-
placement.

(7238SJ) (05B)

c. Merriam's Turkey

1) Protect three turkey roost tree
clumps/section in all ponderosa
pine and mixed conifer sale
areas, if available. Where de-
ficient, designate four clumps

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

of the largest DBH presently
available for future use. The
minimum size of a clump is to be
one-tenth acre.

- 2) Provide two turkey food stations
per four square miles in known
winter concentration areas.
- 3) Construct four five-acre live-
stock exclosures/section in
known turkey nesting habitat.
- 4) Provide additional water sources
as necessary in deficient low
elevation areas to bring the
total water sources up to
three/section.

(72396J) (05B)

d. Abert's Squirrel

Protect or provide for one Abert's
squirrel nest tree clump (0.1 acre
of 9" to 22" DBH ponderosa pine
with a basal area of 180 to 220 and
an interlocking canopy)/two acres
on all ponderosa pine sale areas.

(72406J) (05B)

e. Goshawk:

Prohibit disruptive management
activities within 300 feet of any
occupied raptor nests during the
period May 1 through July 31.

(72316J) (05B)

a. Maintain vegetation in
fair or better range con-
dition.

(6172) (05B)

Range Resource
Management
(002)

01 Manage grazing to favor big-game and to achieve
the wildlife populations identified in state-wide
comprehensive wildlife plans.
(0315) (05B)

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

b. Limit livestock use of
browse and herbaceous plant
production to that not needed
by big game.
(6173) (05B)

c. On big game winter range, live-
stock will be moved or grazing not
allowed when livestock and wild
herbivores allowable forage use by
grazing system and range type
exceeds the following:

1) Rest-rotation system:

Use by range type:

-Mainly seed reproduction:
(Bunchgrass, plains grass-
land, foothills shrub and
alpine range types):

20-25 percent on heavy use
pastures.
10-15 percent on light use
pastures.

-Mainly vegetative
reproduction (meadow, sand-
hill prairie, bluegrass
bottoms, and aspen range
types):

Bluegrass: maximum of 45-50
percent; others, 25-30 per-
cent on heavy use pastures,
10-15 percent on light use
pastures.

2) Deferred Rotation System:

Use by range type:

-Mainly seed reproduction:
10-15 percent on all
pastures.

III-168

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

-Mainly vegetative reproduction:
15-20 percent on all
pastures.

3) Rotation System

Use by range type:

-Mainly seed reproduction:
Max. of 15-20 percent on
last pastures;
Max. of 5-10 percent on
first used pasture.

-Mainly vegetative reproduction:
Max. of 20-25 percent on
last used pasture.
Max. of 10-15 percent on
first used pasture.

4) Continuous System (Grazing same
time and place every year):

Use by range type:

-Mainly seed reproduction:

Use by Condition Class on Key Area				
Season	Good and Excellent	Fair	Poor	Very Poor
Full Grazing Season or Spring	0- 5%	0	0	0
Summer	5- 10%	0	0	0
Fall and/or	15- 20%	5- 10%	0	0

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

Winter

-Mainly vegetative reproduction:

Same as primary seed reproduction except increase utilization by 10% on the bluegrass.

5) Alternate Years System:

Use by range type on key areas:

-Mainly seed reproduction:

Condition Class on Key Area	Use
Good-Excellent	20-25%
Fair	5-15%
Poor	0-5%
Very Poor	0

-Mainly vegetative reproduction:

Condition Class on Key Area	Use
Good-Excellent	25-30%
Fair	10-20%
Poor	0-5%
Very Poor	0

Bluegrass 45-50% on good or better condition and same proper use percent for fall and lower as above.

(76298J) (05B)

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

02 Utilize extensive management systems such as season-
long or deferred grazing.

(2031SJ) (05B)

03 Protect regeneration from livestock damage.
(0133) (05B)

a. Exclude livestock from planta-
tions and naturally regenerating
areas when utilization of useable
forage exceeds 20 percent or when
seedling stocking is less than the
desired number per acre as shown in
Forest Direction under management
activity "Reforestation."

(7626SJ) (05B)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Structural range improvement should be designed
to benefit wildlife and livestock.
(0416) (05B)

a. Structural improvements
will not adversely affect big
game movement (FSH 2209.22).
(6247) (05B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types to achieve and maintain
desired thermal and hiding cover, cover-opening ratios
and other habitat needs associated with tree cover.
(0324) (05B)

02 Manage forest cover types using the following harvest
methods:

- Clearcut in aspen.
- Shelterwood in interior ponderosa pine, mixed conifer
and Engelmann spruce-subalpine fir.

(2526SJ) (05B)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.

(6074) (05B)

b. Silvicultural Standards:
(These standards may be exceeded on
areas managed for old growth.)

MANAGEMENT PRESCRIPTION 05B

III-171

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

1) Clearcut:*

Forest Cover Type		
	Lodgepole Pine	Aspen
Rotation Age	90-140 Yrs	70-90 Yrs
Growing Stock Level	80-120	N/A
Thinning cycle	20-30 Yrs	N/A

* Does not apply on slopes > 60%

2) Two-Step Shelterwood:*

Forest Cover type	
	Interior Ponderosa Pine
Rotation Age	100-140 yrs. on 80% of type. 200 + yrs. on 20% of type.
Growing Stock Level	80-120 on 80% of area. 160-180 on 20% of area.
Thinning Cycle	20-30 Yrs
First Cut (seed cut). Cut to	BA 30-50

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Second Cut (removal cut)
Remove all overstory when
regenerated stand meets
minimum stocking standards.

* Does not apply on slopes > 30%

3) Three-Step Shelterwood:*

Forest Cover Type

Engelmann
spruce-
Subalpine
Fir & Mixed
Conifer

Rotation 180-200
Yrs

Age

Growing Stock Level 110-130

Thinning 25-35
Cycle Yrs

First Cut (preparatory cut).
Remove up to 30 percent of the
basal area.

Second Cut (seed cut).
Remove 40 to 50 percent of the
remaining basal area or
Cut to: BA 60-80
10-20 Yrs
after pre-
paratory cut

Third Cut (removal cut). Remove
all overstory when regenerated
stand meets minimum stocking
standards.

* Does not apply on slopes > 60%

III-173

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

(8041SJ) (05B)

03 Apply intermediate treatments to maintain growing
stock level standards.

(0140) (05B)

04 Utilize firewood material using both commercial
and noncommercial methods.

(0147) (05B)

05 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (05B)

a. When the Visual Quality
Objective of an area is modifi-
cation or maximum modification,
the regenerated stand shall meet
or exceed all of the following
characteristics before a cut-
over area is no longer considered
an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or tran-
sects that are stocked.

(6014) (05B)

Timber Stand
Improvement
(E05)

01 Control undesirable understory vegetation to favor tree
growth necessary for cover on winter range.

(2552SJ) (05B)

a. Ponderosa Pine: Control Gambel
oak in stands on slopes <30% at
10-year intervals starting at a
stand age of 30.

(8060SJ) (05B)

MANAGEMENT PRESCRIPTION 05B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Minerals
Management-
Coal, Leasable
Uranium and
Non-Energy
Common Minerals
Materials
(G03, 05, 06
and 07)

01 Limit cumulative effects of surface coal mining operations in big game key winter range.

(3528SJ) (05B)

a. Limit simultaneous operation of surface coal mining to no more than 30% of any contiguous tract of each 1,000 acres of big game key winter range.

(8626SJ) (05B)

Special Use
Management (Non-
Recreation)
(J01)

01 Eliminate special uses that conflict with wintering animals.

(0320) (05B)

Rights-of-way
and Land
Adjustments
(J02, 13, 15,
16, 17, and 18)

01 Acquire private lands needed for big-game winter range.

(0319) (05B)

Transportation
System
Management
(L01 & 20)

01 Allow new roads in the management area only if needed to meet priority goals outside the management area or to meet big game goals on the management area. Obliterate temporary roads within one season after planned use ends.

(0762) (05B)

a. New permanent or temporary roads constructed in the management area must meet the following criteria:

1) There is no feasible alternative to build the road outside the area, and the road is essential to achieve priority goals and objectives of contiguous management areas, or to provide access to land administered by other government agencies or to contiguous private land.

2) The State Fish and Wildlife agency has been fully involved in the road location, planning and alternative evaluation.

3) Planned management of road use during winter will prevent or minimize disturbance of wintering big game animals, or

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(LO1 & 20)

will allow hunting and other management activities needed to meet wildlife management objectives.

4) Roads are constructed to the minimum standards necessary to provide safety for the road use purpose.

5) Roads cross the winter range in the minimum distance feasible to facilitate the necessary use.

6) Road traffic and road cut or fill slopes must not block big game movement in delineated migration routes or corridors.
(666B) (05B)

b. Manage the area for a low density (zero to one-half mile/square mile) of constant roads.

(9334SJ) (05B)

a. Opening of existing roads during winter can be approved if the following criteria are met:

1) There is no reasonable alternative for owners or managers of contiguous private land or public land to reach their lands during winter.

2) Road use, off-road vehicle use, or non-motorized use of the area is essential and is the minimum necessary to meet priority resource management goals and objectives.

3) The State Fish and Wild-

02 Close existing roads, prohibit off-road vehicle use and manage non-motorized use to prevent stress on big game animals.
(0764) (05B)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Transportation
System
Management
(L01 & 20)

Trail
System
Management
(L23)

Fire Planning
and
Suppression
(P01)

01 Provide trails only when needed to access other manage-
ment areas.

(4735SJ) (05B)

01 Provide a level of protection from wildfire that is
cost efficient and that will meet management objectives
within the vegetation cover types.

(5026SJ) (05B)

life Agency is fully involved
in planning human use of area
during winter.

(6670) (05B)

a. Maintain trails to maintenance
level two.

(9331SJ) (05B)

a. Wildfire protection levels:

1) Pinon pine-juniper, gambel oak,
grasslands, aspen.

a) Confine or contain wildfires
burning at Fire Intensity
Levels (FIL) I and II.

b) Effect control of wildfires
burning at FIL's III and
higher.

2) Mixed browse, mixed conifers,
Engelmann spruce and subalpine
fir.

a) Promptly control wildfires
burning at all FIL's.

3) Inland ponderosa pine.

a) When stand age is < 30 years,
promptly control wildfires
burning at all FIL's.

b) When stand age is > 30 years,
confine or contain wildfires
burning at FIL's I and II;
effect control of wildfires
burning at FIL's III and
higher.

(9626SJ) (05B)

MANAGEMENT PRESCRIPTION 05B

PREScription FOR MANAGEMENT AREA 6B

(Emphasis is on livestock grazing.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

The area is managed for livestock grazing. Range condition is currently at or above the satisfactory level. Intensive grazing management systems are favored over extensive systems. Range condition is maintained through use of forage improvement practices, livestock management, and regulation of other resource activities. Periodic heavy forage utilization occurs. Investment in structural and non-structural range improvements to increase forage utilization is moderate to high. Structural improvements benefit, or at least do not adversely affect wildlife. Conflicts between livestock and wildlife are resolved in favor of livestock. Non-structural restoration and forage improvement practices available are seeding, planting, burning, fertilizing, pitting, furrowing, spraying, crushing, and plowing. Cutting of encroaching trees may also occur.

Investments are made in compatible resource activities. Dispersed recreational opportunities vary between semi-primitive non-motorized and roaded natural. Management activities are evident but harmonize and blend with the natural setting.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES

GENERAL DIRECTION

STANDARDS & GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

01 Manage non-commercial forest and non-forest cover types
to meet the standards and guidelines.

(0026SJ) (06B)

a. Non-commercial and non-forest
cover type management:*

1) Pinon pine-Juniper:

a) Manage 90% of the area under
a 200-year rotation in stands
up to 40 acres distributed
evenly throughout the type to
favor livestock and wildlife
management indicator species;
deer and elk. Seed with for-
age species.

b) Retain 10% of the area in
pinon pine-juniper for shade
and habitat diversity.

2) Gambel Oak (Includes ponderosa
pine sites which are presently
non-stocked):

a) Manage 30% of the area for
oakbrush under a 100-year
rotation with an approxima-
tion of equal distribution of
size classes for shade and to
favor wildlife management in-
dicator species; deer, elk,
bear and green-tailed towhee.
Protect largest diameter oak
in 1 to 3-acre patches up to
10% of area.

b) Manage 70% of the area for
grass to favor livestock.

3) Mixed Browse:

Manage under a 100-year rotation
to strive for a variety of age
class distribution to favor
livestock and wildlife indicator
species; deer and elk.

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)		4) Grassland: Manage to retain in forage to favor livestock. Reseed with forage species. * These standards and guidelines are applicable only on slopes <60%. (6038SJ) (06B)
	02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions." (0041SJ) (06B)	
Cultural Resource Management (A02)	01 Allow recreation and non-recreation use of suitable cul- tural resource properties to the extent that such uses do not conflict with livestock grazing. Limit interpretation to low cost developments such as interpretive signing. (0535SJ) (06B)	
Visual Resource Management (A04)	01 Design and implement management activities to blend with the natural landscape. (0332) (06B)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of modification. (6267) (06B) b. When projects require clearing of vegetation and (or) soil disturbance, use irregular clearing edges and shapes to blend with the natural land- scapes. (6185) (06B)
Dispersed Recreation Management (A14 and 15)	01 Provide roaded natural recreation opportunities as an overall objective. Both semi-primitive motorized and non- motorized opportunities will be available until planned resource activities are implemented. (0527SJ) (06B)	a. Maximum Use and Capacity Levels are: ----- Recreation use and capacity range during the snow-free period (PAQT/acre): -----

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

Trail use and capacity range
(PAOT/mile of trail):

Capacity Range*				
Class	Very Low		Moderate	
	Low	Low	ate	High
ROS Class - Semi-Primitive Non-motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Semi-Primitive Motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Roaded Natural				
On Trails				
PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.04	.08	1.2	2.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

* VERY LOW applies to alpine.

LOW applies to rock, mtn. grass
and clearcuts 1-20 years old.

MODERATE applies to mtn. grass,
PP size class 9, 8 and 7, DF size
class 9, 8 and 7, Aspen size
class 9, SF size class 7, shel-
terwood cuts 90-120 years old,
selection cuts 1-20 years old and
clearcuts 80-120 years old.

HIGH applies to SF size class 9
and 8, Aspen size class 8 and 7
and clearcuts 20-80 years old.

(6426SJ) (06B)

b. Specify off-road vehicle
restrictions based on ORV
use management (FSM 2355,
R2 Supp. 88).
(6083) (06B)

c. See FSM 2331, FSM 7732,
FSH 7709.12 (Trails
Handbook), FSH 7109.11a
and 11b (Sign Handbook).
(6226) (06B)

02 Permit undesignated sites in Frissell condition class 1
through 3 where unrestricted camping is permitted.
(0174) (06B)

03 Manage site use and occupancy to maintain sites with-
in Frissell condition class 3 except for designated
sites which may be class 4. Close and restore class 3
sites.
(0175) (06B)

MANAGEMENT PRESCRIPTION 06B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

04 Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails in alpine shrub and Krummholz ecosystems. Prohibit motorized vehicle use off Forest System roads and trails (except snowmobiles operating on snow) in other alpine, and other ecosystems, where needed to protect soils, vegetation, or special wildlife habitat.
(0154) (06B)

05 Restrict use to resolve people/livestock conflicts, favoring livestock in such conflicts.
(0536SJ) (06B)

Wildlife and
Fish Resource
Management
(G01)

01 Maintain habitat capability for management indicator species.
(0329) (06B)

a. Maintain capability at 60 percent of potential capability.
(6186) (06B)

02 Provide adequate forage to sustain big-game population levels agreed to in the Statewide Comprehensive Wildlife Management Plan on NFS lands.
(0330) (06B)

a. Allocate no more than 80 percent of available forage to livestock.
(6187) (06B)

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

01 See the "Diversity on National Forests and National Grasslands" and "Silvicultural Prescriptions" management activities for specific vegetation treatment for wildlife objectives.
(1526SJ) (06B)

02 Design management activities to favor indicator species endemic to particular habitat types.
(1527SJ) (06B)

a. Deer, Elk, and Bear:
1) Restrict disruptive human activity in calving and fawning areas during the last two weeks of May and the first two weeks of June.
2) Maintain a wildlife movement corridor at least 600 feet wide and capable of hiding 90 percent of an elk or deer at 200 feet in each square mile where vegetation treatment projects occur.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

(7249SJ) (06B)

b. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 20 snags/10
acres in all forested types. Also
provide for snag replacement.

(7227SJ) (06B)

c. Merriam's Turkey

1) Protect two turkey roost tree
clumps/section in all ponderosa-
pine sale areas. The minimum
size of a clump is to be one-
tenth acre.

2) Provide one turkey food station
per four square miles in one-
third of the known winter con-
centration areas.

3) Construct two five-acre live-
stock exclosures/section in
known turkey nesting habitat.

4) Provide additional water sources
as necessary in deficient low
elevation areas to bring the
total water sources up to two/
section.

(7250SJ) (06B)

d. Abert's Squirrel

Protect or provide for one Abert's
squirrel nest tree clump (0.1 acre
of 9" to 22" DBH ponderosa pine
a basal area of 180 to 220 and an
interlocking canopy)/six acres on
all ponderosa pine sale areas.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

(7229SJ) (06B)

e. Pine Marten:

Within spruce-fir sale areas on pine marten habitat, retain at least ten percent of the area in old growth timber (200+ years) with a canopy closure greater than 30 percent. Where the canopy is totally eliminated, the opening should not be more than 300 feet wide.

(7230SJ) (06B)

f. Goshawk:

Prohibit disruptive management activities within 300 feet of any occupied raptor nests during the period May 1 through July 31.

(7231SJ) (06B)

g. Merriam's Turkey, Deer Mouse, Sharptail Grouse, Mallard, and Green-tailed Towhee:

- 1) Construct one brush pile (10'x 20'x4') every six acres in those sale areas where naturally occurring ground litter has been drastically reduced.
- 2) Fence one-third of the area of one out of every three earthen constructed livestock reservoirs to protect lacustrine nesting habitat for small non-game birds and mammals.

(7232SJ) (06B)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range Resource
Management
(D02)

01 Use only intensive grazing systems or remove
livestock when recovery of range condition cannot
be accomplished by an intensive grazing system.
(0325) (06B)

02 Improve range condition to fair or better
or forage value rating to moderately high or better.
(0326) (06B)

a. Base range condition on the
standards in Range Analysis
Handbook (FSH 2209.21).
(6156) (06B)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Invest in cost-effective allotment management
and associated range improvements.
(0327) (06B)

a. Base economic analysis on
Project Effectiveness Analysis
Handbook (FSH 2209.11).
(6290) (06B)

02 Invest in cost-effective grazing management and
rangeland productivity improvements. Where improve-
ments include water developments, a water right in the
name of the United States must be obtained.
(0328) (06B)

a. Structural improvements
will not adversely affect
big-game movement.
(6182) (06B)

03 See the "Diversity on National Forests and National
Grasslands" management activity for specific vegetation
treatment for livestock objectives. Reduce permitted
stocking to protect range revegetation projects until
improvement is achieved.

(2038SJ) (06B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Maintain and manage forested inclusions to provide
a high level of forage production, wildlife habitat,
and diversity.
(0333) (06B)

02 Manage forest cover types using the following harvest
methods:

- Clearcut in aspen, mixed conifer, lodgepole pine, and
Engelmann spruce-subalpine fir.

- Shelterwood in interior ponderosa pine.

(2529SJ) (06B)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.

(6074) (06B)

b. Silvicultural Standards:

MANAGEMENT PRESCRIPTION 06B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

(These standards may be exceeded on
areas managed for old growth.)

1) Clearcut:*

Forest Cover Type			
	Lodgepole Pine	Aspen	Engelmann spruce- subalpine fir&Mixed Conifer
Rotation Age	90-140 Yrs	70-90 Yrs	180-200 Yrs
Growing Stock Level	80-120	N/A	110-130
Thinning cycle	20-30 Yrs	N/A	25-35 Yrs

* Does not apply on slopes > 60%

The largest increase in water
available for stream flow results
when 30 to 40 percent of a drain-
age is harvested in small clear-
cut patches (3 to 10 acres) dis-
persed throughout the area of a
watershed. (Leaf and Alexander
FS Res. Pap. RM 133).

The clearcuts should be concen-
trated on lower to midslope po-
sitions in lower energy aspects
(N, NE, NW). The clearcuts should
be 5 to 7 tree heights in width.

2) Two-Step Shelterwood:*

Forest Cover type

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Interior
Ponderosa
Pine

Rotation Age	100-140 yrs. on 95% of type. 200 + yrs. on 5% of type.
Growing Stock Level	70-90 on 95% of area. 160-180 on 5% of area.
Thinning Cycle	20-30 Yrs
First Cut (seed cut). Cut to	BA 30-50
Second Cut (removal cut) Remove all overstory when re- generated stand meets minimum stocking standards.	
* Does not apply on slopes > 30%	

(8049SJ) (06B)

03 Utilize firewood material using both commercial
and noncommercial methods.
(0147) (06B)

MANAGEMENT PRESCRIPTION 06B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

04 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50 percent of the potential increase;
- Forage and/or browse production drops below 40 percent of potential production;
- Deer and elk hiding cover reaches 60 percent of potential;
- Minimum stocking standards by forest cover type and site productivity are met; and
- The area appears as a young forest rather than a restocked opening, and takes on the appearance of the adjoining characteristic landscape.

(0500) (06B)

a. When the Visual Quality Objective of an area is modification or maximum modification, the regenerated stand shall meet or exceed all of the following characteristics before a cut-over area is no longer considered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Grown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole		

MANAGEMENT PRESCRIPTION 06B

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
CONTINUATION OF: Silvicultural Prescriptions (E03, 06 & 07)		Pine 30 75% Engelmann Spruce- Subalpine fir 30 75% Aspen 30 75% ----- 1/ Applies to trees specified as minimum stocking level. 2/ Percent of plots or tran- sects that are stocked. (6014) (06B)
Reforestation (E04)	01 Supplement natural regeneration in some areas to compen- sate for domestic grazing damage. (2528SJ) (06B)	
Timber Stand Improvement (E05)	01 Control undesirable understory vegetation to favor tree growth. (2527SJ) (06B)	a. Ponderosa Pine: Control Gambel oak in stands on slopes <30% at 10-year intervals starting at a stand age of 30. (8060SJ) (06B)
Water Resource Improvement and Maintenance (F05 and 06)	01 Prolong streamflow, increase water yields and meet State water quality standards. (0145) (06B)	a. Use snow fencing in montane meadows or alpine where snow depo- sition will occur in protected areas. Structures should be con- structed with: 1) Ridge crest locations with at least 500 feet of upwind con- tributing area. 2) Perpendicular orientation to prevailing winds. 3) Northerly to northeasterly ex- posure of resultant snow drift. (8426SJ) (06B)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Water Resource
Improvement and
Maintenance
(F05 and 06)

02 See the "Silvicultural Prescriptions" management activity for specific vegetation treatment for increased water yield.

(3026SJ) (06B)

Transportation
System
Management
(L01 & 20)

01 Manage local constant roads to accommodate medium-light seasonal use (SADT 10-50). Regulate seasonal public use by closure if roadbed damage will occur and where travel conflicts with livestock grazing.

(4727SJ) (06B)

02 Manage local intermittent roads to accommodate light use (SADT 0-20). Close to public use.

(4728SJ) (06B)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Construct roads to accommodate livestock management with a mix of other resource activities. Design most facilities for multi-resource use.

(4750SJ) (06B)

a. Manage the area for a moderate density (one-half to one mile/square mile) of constant roads.

(9333SJ) (06B)

a. Construct or reconstruct local constant roads to 75 percent modified gravel support.

(9327SJ) (06B)

b. Construct local intermittent roads with no gravel support unless needed to extend logging seasons.

(9328SJ) (06B)

Road
Maintenance
(L19)

01 Maintain roads for a mix of resource uses and public safety.

(4742SJ) (06B)

a. Maintain local constant roads to maintenance level three.

(9329SJ) (06B)

b. Maintain local intermittent roads to maintenance level two when open for project activities.

(9330SJ) (06B)

MANAGEMENT PRESCRIPTION 06B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Trail
System
Management
(L23)

01 Provide trails for cross-country skiing, snowmobile, foot, and horse travel.

(47325J) (06B)

a. Maintain trails to maintenance level two.

(93315J) (06B)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types.

(50265J) (06B)

a. Wildfire protection levels:

1) Aspen; pinon pine-juniper; Gambel oak; Interior Douglas-fir and ponderosa pine on slopes below 60% with basal area stocking < 40 or non-stocked:

a) Confine or contain wildfires burning at Fire Intensity Levels (FIL's) I and II.

b) Effect control of wildfires burning at FIL's III and higher.

2) All other situations:

Promptly control wildfires burning at all FIL's.

(96285J) (06B)

III-193

PREScription FOR MANAGEMENT AREA 7C

(Emphasis is on management of forested areas on steep slopes.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is to develop and maintain healthy tree cover on forested slopes greater than 40 percent. The harvest method by forest cover type is clearcutting in aspen, lodgepole pine, interior ponderosa pine and mixed conifers, and group selection in Engelmann spruce-subalpine fir.

Management activities, although visually dominant, harmonize and blend with the natural setting.

Roaded-natural recreation opportunities are provided along Forest arterial and collector roads. Semi-primitive motorized recreation opportunities are provided on those local roads and trails that remain open; semi-primitive non-motorized opportunities are provided on those that are closed.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES

GENERAL DIRECTION

STANDARDS & GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

01 Manage non-commercial forest and non-forest cover types
to meet the standards and guidelines.

(0026SJ) (07C)

a. Non-commercial and non-forest
cover type management:*

1) Pinon pine-Juniper:

Manage under a 200-year rotation
in stands up to 40 acres dis-
tributed evenly throughout the
type to favor wildlife manage-
ment indicator species; deer and
elk. Seed with forage species.

2) Gambel Oak:

a) Manage 70% of the area for
oakbrush under a 100-year ro-
tation with an approximation
of equal distribution of size
classes to favor wildlife
management indicator species;
deer, elk, bear and green-
tailed towhee. Protect
largest diameter oak in 1 to
3-acre patches up to 10% of
area.

b) Manage 30% of the area for
grass to favor wildlife man-
agement indicator species;
elk. Seed with forage spe-
cies.

3) Mixed Browse:

Manage under a 100-year rotation
to strive for a variety of age
class distribution from young to
mature to favor wildlife manage-
indicator species; deer, elk.

4) Grassland:

Manage to retain in forage to
favor wildlife management indi-
cator species; elk, and for

III-195

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)		livestock. Reseed with forage species. * These standards and guidelines are applicable only on slopes < 60%. (6027SJ) (07G)
	02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions." (0041SJ) (07G)	
Cultural Resource Management (A02)	01 Allow recreation and non-recreation use of suitable cultural resource properties to the extent that such uses do not conflict with wood fiber production. Limit inter- pretation to low cost developments such as interpretive signing. (0526SJ) (07G)	
Visual Resource Management (A04)	01 Meet stated visual quality objective. (0125) (07G)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of: Partial retention within the foreground of arterial/collector roads and primary trails. Modification on all other areas. (6067) (07G) b. Apply rehabilitation practices where the above objectives are not currently being met. (6068) (07G)
Dispersed Recreation Management (A14 and 15)	01 Provide roaded natural recreation opportunities as an overall objective. Both semi-primitive motorized and non- motorized opportunities will be available until planned resource activities are implemented. (0527SJ) (07G)	a. Maximum Use and Capacity Levels are: ----- Recreation use and capacity range during the snow-free period (PAOT/acre): ----- Trail use and capacity range

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

(PAOT/mile of trail):

Class	Capacity Range*			
	Very Low	Low	Mod- erate	High
ROS Class - Semi-Primitive Non-motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Semi-Primitive Motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
ROS Class - Roaded Natural				
On Trails				
PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.04	.08	1.2	2.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.

* VERY LOW applies to alpine.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

LOW applies to rock, mtn. grass
and clearcuts 1-20 years old.

MODERATE applies to mtn. grass,
PP size class 9, 8 and 7, DF size
class 9, 8 and 7, Aspen size
class 9, SF size class 7, shel-
terwood cuts 90-120 years old,
selection cuts 1-20 years old and
clearcuts 80-120 years old.

HIGH applies to SF size class 9
and 8, Aspen size class 8 and 7
and clearcuts 20-80 years old.

(6426SJ) (07G)

b. Specify off-road vehicle
restrictions based on ORV
use management (FSM 2355,
R2 Supp. 88).
(6083) (07G)

c. See FSM 2331, FSM 7732,
FSH 7709.12 (Trails
Handbook), FSH 7109.11a
and 11b (Sign Handbook).
(6226) (07G)

02 Permit undesignated sites in Frissell condition class 1
through 3 where unrestricted camping is permitted.
(0174) (07G)

03 Manage site use and occupancy to maintain sites with-
in Frissell condition class 3 except for designated
sites which may be class 4. Close and restore class 5
sites.
(0175) (07G)

MANAGEMENT PRESCRIPTION 07G

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

04 Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails in alpine shrub and Krummholz ecosystems. Prohibit motorized vehicle use off Forest System roads and trails (except snowmobiles operating on snow) in other alpine, and other ecosystems, where needed to protect soils, vegetation, or special wildlife habitat.

(0154) (07G)

05 Emphasize opportunities for dispersed motorized recreation and direct people to lesser-used areas.

(0528SJ) (07G)

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

01 See the "Diversity on National Forests and National Grasslands" and "Silvicultural Prescriptions" management activities for specific vegetation treatment for wildlife objectives.

(1526SJ) (07G)

02 Design management activities to favor indicator species endemic to particular habitat types.

(1527SJ) (07G)

a. Deer, Elk, and Bear:

1) Restrict disruptive human activity in calving and fawning areas during the last two weeks of May and the first two weeks of June.

2) Maintain a wildlife movement corridor at least 600 feet wide and capable of hiding 90 percent of an elk or deer at 200 feet in each square mile where vegetation treatment projects occur.

(7249SJ) (07G)

b. Hairy Woodpecker and Mountain Bluebird:

Protect and/or provide 20 snags/10 acres in all forested types. Also provide for snag replacement.

(7227SJ) (07G)

MANAGEMENT PRESCRIPTION 07G

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

c. Merriam's Turkey

- 1) Protect two turkey roost tree clumps/section in all ponderosa pine sale areas. The minimum size of a clump is to be one-tenth acre.
- 2) Provide two turkey food stations per four square miles in one-third of the known winter concentration areas.
- 3) Construct two five-acre live-stock exclosures/section in known turkey nesting habitat.
- 4) Provide additional water sources as necessary in deficient low elevation areas to bring the total water sources up to two/section.

(7228SJ) (07C)

d. Abert's Squirrel

Protect or provide for one Abert's squirrel nest tree clump (0.1 acre of 9" to 22" DBH ponderosa pine a basal area of 180 to 220 and an interlocking canopy)/six acres on all ponderosa pine sale areas.

(7229SJ) (07C)

e. Pine Marten:

Within spruce-fir sale areas on pine marten habitat, retain at least ten percent of the area in old growth timber (200+ years) with a canopy closure greater than 30 percent. Where the canopy is totally eliminated, the opening

MANAGEMENT
ACTIVITIESGENERAL
DIRECTIONSTANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

should not be more than 300 feet wide.

(7230SJ) (07C)

f. Goshawk:

Prohibit disruptive management activities within 300 feet of any occupied raptor nests during the period May 1 through July 31.

(7231SJ) (07C)

g. Merriam's Turkey, Deer Mouse, Sharptail Grouse, Mallard, and Green-tailed Towhee:

1) Construct one brush pile (10'x 20'x4') every six acres in those sale areas where naturally occurring ground litter has been drastically reduced.

2) Fence one-third of the area of one out of every three earthen constructed livestock reservoirs to protect lacustrine nesting habitat for small non-game birds and mammals.

(7232SJ) (07C)

Range Resource
Management
(002)

01 Utilize improved management systems such as rest-rotation, deferred rotation, rotation, or alternate years.

(2026SJ) (07C)

02 Utilize transitory forage that is available where demand exists, and where investments in regeneration can be protected.

(0132) (07C)

a. Vary utilization standards with grazing system and ecological condition. Specify standards in the allotment management plan.
(6071) (07C)

MANAGEMENT PRESCRIPTION 07C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

03 Protect regeneration from livestock damage.
(0133) (07C)

a. Exclude livestock from planta-
tions and naturally regenerating
areas when utilization of useable
forage exceeds 20 percent or when
seedling stocking is less than the
desired number per acre as shown in
Forest Direction under management
activity "Reforestation."

(7626SJ) (07C)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 See the "Diversity on National Forests and National
Grasslands" management activity for specific vegetation
treatment for livestock objectives.

(2028SJ) (07C)

02 Invest in cost-effective allotment management
and associated range improvements.
(0327) (07C)

a. Base economic analysis on
Project Effectiveness Analysis
Handbook (FSH 2209.11).
(6290) (07C)

b. Structural improvements
will not adversely affect
big-game movement.
(6182) (07C)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types using the following
harvest methods:

- Clearcut all cover types except Engelmann Spruce-
Subalpine fir, and
- Group selection in Engelmann Spruce-subalpine fir.
(0498) (07C)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.
(6074) (07C)

b. Silvicultural Standards:
(These standards may be exceeded on
areas managed for old growth.)

1) Clearcut:

	Forest Cover Type

	Lodgepole Mixed

MANAGEMENT PRESCRIPTION 07C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

	Pine	Conifer	Aspen
Rotation Age	90-180 Yrs	180-200 Yrs	70-90 Yrs
Growing Stock Level	80-160	110-130	N/A
Thinning cycle	20-30 Yrs	25-35 Yrs	M/A
2) Selection:			
Forest Cover Type			
Engelmann spruce-Subalpine Fir			
Residual BA	150-180		
Thinning Cycle	25-35 Yrs		
Q Factor	1.3		

(B035SJ) (07G)

02 Apply intermediate treatments to maintain growing stock level standards.
(0140) (07G)

03 Utilize firewood material using both commercial and noncommercial methods.
(0147) (07G)

MANAGEMENT PRESCRIPTION 07G

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

04 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50 percent of the potential increase;
- Forage and/or browse production drops below 40 percent of potential production;
- Deer and elk hiding cover reaches 60 percent of potential;
- Minimum stocking standards by forest cover type and site productivity are met; and
- The area appears as a young forest rather than a restocked opening, and takes on the appearance of the adjoining characteristic landscape.

(0500) (07C)

a. When the Visual Quality Objective of an area is modification or maximum modification, the regenerated stand shall meet or exceed all of the following characteristics before a cut-over area is no longer considered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole		

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Pine 30 75%

Engelmann
Spruce-
Subalpine
fir 30 75%

Aspen 30 75%

- 1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or tran-
sects that are stocked.

(6014) (07C)

b. When the Visual
Quality Objective of an area
is partial retention, the re-
generated stand shall meet or
exceed all of the following
characteristics before a cut-
over area is no longer consid-
ered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Height 1/ (% of the adjacent mature stand height)
-------------------------	--	---

Inland Ponderosa Pine	190	25
-----------------------------	-----	----

Mixed Conifers	190	25
-------------------	-----	----

Lodgepole Pine	150	25
-------------------	-----	----

Engelmann

MANAGEMENT PRESCRIPTION 07C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Spruce - Sub- alpine fir	150	25
Aspen	300	25
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

- 1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or transects
that are stocked.
(6316) (07C)

Transportation
System
Management
(L01 & 20)

01 Manage local constant roads to accommodate medium-light
seasonal use (SADT 10-50). Regulate seasonal public use by
closure if roadbed damage will occur.

(47935J) (07C)

02 Manage local intermittent roads to accommodate light use
(SADT 0-20). Close to public use.

(47285J) (07C)

a. Manage the area for a high den-
sity (one to three miles/square
mile) of constant roads.

(93265J) (07C)

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Local Road Construction and Reconstruction (L11, 12, & 13)	<p>01 Construct roads to support timber management activities along with a mix of other resource activities. Design most facilities for multi-resource use.</p> <p>(4729SJ) (07C)</p> <p>02 Provide parking areas for dispersed recreationists along system roads.</p> <p>(4730SJ) (07C)</p>	<p>a. Construct or reconstruct local constant roads to 75 percent modified gravel support.</p> <p>(9327SJ) (07C)</p> <p>b. Construct local intermittent roads with no gravel support unless needed to extend logging seasons.</p> <p>(9328SJ) (07C)</p>
Road Maintenance (L19)	<p>01 Maintain roads to support timber management activities along with a mix of other resource activities.</p> <p>(4731SJ) (07C)</p>	<p>a. Maintain local constant roads to maintenance level three.</p> <p>(9329SJ) (07C)</p> <p>b. Maintain local intermittent roads to maintenance level two when open for project activities.</p> <p>(9330SJ) (07C)</p>
Trail System Management (L23)	<p>01 Provide trails for cross-country skiing, snowmobile, foot, and horse travel.</p> <p>(4732SJ) (07C)</p>	<p>a. Maintain trails to maintenance level two.</p> <p>(9331SJ) (07C)</p>
Fire Planning and Suppression (P01)	<p>01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives within the vegetation cover types.</p> <p>(5026SJ) (07C)</p>	<p>a. Wildfire protection levels:</p> <p>1) Pinon pine-juniper, gambel oak, grasslands, aspen.</p> <p>a) Confine or contain wildfires burning at Fire Intensity Levels (FIL) I and II.</p> <p>b) Effect control of wildfires burning at FIL's III and higher.</p>

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fire Planning
and
Suppression
(POI)

2) Mixed browse, mixed conifers,
Engelmann spruce and subalpine
fir.

a) Promptly control wildfires
burning at all FIL's.

3) Inland ponderosa pine.

a) When stand age is < 30 years,
promptly control wildfires
burning at all FIL's.

b) When stand age is > 30 years,
confine or contain wildfires
burning at FIL's I and II;
effect control of wildfires
burning at FIL's III and
higher.

(96245J) (07C)

III-208

PREScription FOR MANAGEMENT AREA 7E

(Emphasis is on wood-fiber production and utilization.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is on wood-fiber production and utilization of large roundwood of a size and quality suitable for sawtimber. The harvest method by forest cover type is clearcutting in aspen and lodgepole pine, and shelterwood in Engelmann spruce-subalpine fir, interior ponderosa pine and mixed conifers.

The area generally will have a mosaic of fully stocked stands that follow natural patterns and avoid straight lines and geometric shapes. Management activities are not evident or remain visually subordinate along Forest arterial and collector roads and primary trails. In other portions of the area, management activities may dominate in foreground and middleground, but harmonize and blend with the natural setting.

Roaded-natural recreation opportunities are provided along Forest arterial and collector roads. Semi-primitive motorized recreation opportunities are provided on those local roads and trails that remain open. Semi-primitive non-motorized opportunities are provided on those that are closed.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage non-commercial forest and non-forest cover types to meet the standards and guidelines. (0026SJ) (07E)	<p>a. Non-commercial and non-forest cover type management:</p> <p>1) Pinon pine-Juniper:</p> <p>Manage under a 200-year rotation in stands up to 40 acres distributed evenly throughout the type to favor wildlife management indicator species; deer and elk. Seed with forage species.</p> <p>2) Gambel Oak:</p> <p>a) Manage 70% of the area for oakbrush under a 100-year rotation with an approximation of equal distribution of size classes to favor wildlife management indicator species; deer, elk, bear and green-tailed towhee. Protect largest diameter oak in 1 to 3-acre patches up to 10% of area.</p> <p>b) Manage 30% of the area for grass to favor wildlife management indicator species; elk. Seed with forage species.</p> <p>3) Mixed Browse:</p> <p>Manage under a 100-year rotation to strive for a variety of age class distribution from young to mature to favor wildlife management indicator species; deer, elk.</p> <p>4) Grassland:</p> <p>Manage to retain in forage to favor wildlife management indi-</p>

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Diversity on
National Forests
and National
Grasslands
(A00)

02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions."

(00418J) (07E)

Cultural
Resource
Management
(A02)

01 Allow recreation and non-recreation use of suitable cultural resource properties to the extent that such uses do not conflict with wood fiber production. Limit interpretation to low cost developments such as interpretive signing.

(0526SJ) (07E)

Visual Resource
Management
(A04)

01 Meet stated visual quality objective.
(0125) (07E)

cator species; elk, and for livestock. Reseed with forage species.

(6026SJ) (07E)

a. Do not exceed an Adopted Visual Quality Objective (VQO) of:

Partial retention within the foreground of arterial/collector roads and primary trails. Modification on all other areas.
(6067) (07E)

b. Apply rehabilitation practices where the above objectives are not currently being met.
(6068) (07E)

Dispersed
Recreation
Management
(A14 and 15)

01 Provide roaded natural recreation opportunities as an overall objective. Both semi-primitive motorized and non-motorized opportunities will be available until planned resource activities are implemented.

(0527SJ) (07E)

a. Maximum Use and Capacity Levels are:

Recreation use and capacity range during the snow-free period (PAOT/acre):

Trail use and capacity range (PAOT/mile of trail):

Capacity Range*

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

Class	Very Low	Low	Moder- ate	High
ROS Class - Semi-Primitive Non-motorized	-	-	-	-
On Trails	-	-	-	-
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide	-	-	-	-
PAOT/acre	.004	.008	.05	.08
ROS Class - Semi-Primitive Motorized	-	-	-	-
On Trails	-	-	-	-
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide	-	-	-	-
PAOT/acre	.004	.008	.05	.08
ROS Class - Roaded Natural	-	-	-	-
On Trails	-	-	-	-
PAOT/mile	-	-	-	-
Area-wide	-	-	-	-
PAOT/acre	.04	.08	1.2	2.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the ROS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.

* VERY LOW applies to alpine.

LOW applies to rock, mtn. grass and clearcuts 1-20 years old.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

MODERATE applies to mtn. grass,
PP size class 9, 8 and 7, DF size
class 9, 8 and 7, Aspen size
class 9, SF size class 7, shel-
terwood cuts 90-120 years old,
selection cuts 1-20 years old and
clearcuts 80-120 years old.

HIGH applies to SF size class 9
and 8, Aspen size class 8 and 7
and clearcuts 20-80 years old.

(6426SJ) (07E)

b. Specify off-road vehicle
restrictions based on ORV
use management (FSM 2355,
R2 Supp. 8B).
(6083) (07E)

c. See FSM 2331, FSM 7732,
FSH 7709.12 (Trails
Handbook), FSH 7109.11a
and 11b (Sign Handbook).
(6226) (07E)

02 Permit undesignated sites in Frissell condition class 1
through 3 where unrestricted camping is permitted.
(0174) (07E)

03 Manage site use and occupancy to maintain sites with-
in Frissell condition class 3 except for designated
sites which may be class 4. Close and restore class 5
sites.
(0175) (07E)

04 Prohibit motorized vehicle use (including snowmobiles)
off Forest System roads and trails in alpine shrub
and Krummholz ecosystems. Prohibit motorized vehicle
use off Forest System roads and trails (except snowmobiles
operating on snow) in other alpine, and other ecosystems,
where needed to protect soils, vegetation, or special wild-
life habitat.
(0154) (07E)

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)
Wildlife
Habitat
Improvement and
Maintenance
(C02, 04, 05
and 06)

05 Emphasize opportunities for dispersed motorized recrea-
tion and direct people to lesser-used areas.

(0528SJ) (07E)

01 See the "Diversity on National Forests and National
Grasslands" and "Silvicultural Prescriptions" management
activities for specific vegetation treatment for wildlife
objectives.

(1526SJ) (07E)

02 Design management activities to favor indicator species
endemic to particular habitat types.

(1527SJ) (07E)

a. Deer, Elk, and Bear:

- 1) Restrict disruptive human ac-
tivity in calving and fawning
areas during the last two weeks
of May and the first two weeks
of June.
- 2) Maintain a wildlife movement
corridor at least 600 feet wide
and capable of hiding 90 percent
of an elk or deer at 200 feet in
each square mile where vegeta-
tion treatment projects occur.

(7249SJ) (07E)

b. Hairy Woodpecker and Mountain
Bluebird:

Protect and/or provide 20 snags/10
acres in all forested types. Also
provide for snag replacement.

(7227SJ) (07E)

c. Merriam's Turkey

- 1) Protect two turkey roost tree
clumps/section in all ponderosa
pine sale areas. The minimum
size of a clump is to be one-
tenth acre.

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

2) Provide two turkey food stations per four square miles in one-third of the known winter concentration areas.

3) Construct two five-acre live-stock exclosures/section in known turkey nesting habitat.

4) Provide additional water sources as necessary in deficient low elevation areas to bring the total water sources up to two/section.

(7228SJ) (07E)

d. Abert's Squirrel

Protect or provide for one Abert's squirrel nest tree clump (0.1 acre of 9" to 22" DBH ponderosa pine a basal area of 180 to 220 and an interlocking canopy)/six acres on all ponderosa pine sale areas.

(7229SJ) (07E)

e. Pine Marten:

Within spruce-fir sale areas on pine marten habitat, retain at least ten percent of the area in old growth timber (200+ years) with a canopy closure greater than 30 percent. Where the canopy is totally eliminated, the opening should not be more than 300 feet wide.

(7230SJ) (07E)

f. Goshawk:

Prohibit disruptive management activities within 300 feet of any

III-215

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(G02, O4, O5
and O6)

occupied raptor nests during the
period May 1 through July 31.

(7231SJ) (07E)

g. Merriam's Turkey, Deer Mouse,
Sharptail Grouse, Mallard, and
Green-tailed Towhee:

1) Construct one brush pile (10'x
20'x4') every six acres in those
sale areas where naturally
occurring ground litter has been
drastically reduced.

2) Fence one-third of the area of
one out of every three earthen
constructed livestock reservoirs
to protect lacustrine nesting
habitat for small non-game birds
and mammals.

(7232SJ) (07E)

Range Resource
Management
(D02)

O1 Utilize improved management systems such as rest-rotation, deferred rotation, rotation, or alternate years.

(2026SJ) (07E)

O2 Utilize transitory forage that is available
where demand exists, and where investments in regeneration
can be protected.

(0132) (07E)

O3 Protect regeneration from livestock damage.

(0133) (07E)

a. Vary utilization standards
with grazing system and ecological
condition. Specify standards in
the allotment management plan.

(6071) (07E)

a. Exclude livestock from plantations and naturally regenerating areas when utilization of useable forage exceeds 20 percent or when seedling stocking is less than the desired number per acre as shown in Forest Direction under management activity "Reforestation."

(7626SJ) (07E)

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 See the "Diversity on National Forests and National
Grasslands" management activity for specific vegetation
treatment for livestock objectives.

(2028SJ) (07E)

02 Invest in cost-effective allotment management
and associated range improvements.

(0327) (07E)

a. Base economic analysis on
Project Effectiveness Analysis
Handbook (FSH 2209.11).
(6290) (07E)

b. Structural improvements
will not adversely affect
big-game movement.
(6182) (07E)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types using the following harvest
methods:

- Clearcut in aspen and lodgepole,
- Shelterwood in interior ponderosa pine, mixed conifer
and Engelmann spruce-subalpine fir.
(0463) (07E)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.
(6074) (07E)

b. Silvicultural Standards:
(These standards may be exceeded on
areas managed for old growth.)

1) Clearcut:

Forest Cover Type		
	Lodgepole Pine	Aspen
Rotation Age	90-140 Yrs	70-90 Yrs
Growing Stock Level	80-140	N/A

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Thinning cycle	20-30 Yrs	N/A
2) Two-Step Shelterwood:		
Forest Cover type		
		Interior Ponderosa Pine
Rotation Age		100-140 yrs. on 95% of type. 200 + yrs. on 5% of type.
Growing Stock Level		80-120 on 95% of area. 160-180 on 5% of area.
Thinning Cycle		25-35 Yrs
First Cut (seed cut). Cut to		BA 30-50
Second Cut (removal cut) Remove all overstory when regenerated stand meets minimum stocking standards.		
3) Three-Step Shelterwood:		
Forest Cover Type		
		Engelmann spruce- Subalpine Fir & Mixed Conifer
Rotation		180-200

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

tion	Yrs
Age	
-----	-----
Growing	110-130
Stock	
Level	
-----	-----
Thinning	25-35
Cycle	Yrs
-----	-----
First Cut (preparatory cut). Remove up to 30 percent of the basal area.	

Second Cut (seed cut). Remove 40 to 50 percent of the remaining basal area or	
Cut to:	BA 60-80 10-20 Yrs after pre- paratory cut

Third Cut (removal cut). Remove all overstory when regenerated stand meets minimum stocking standards.	

(8027SJ) (07E)

02 Apply intermediate treatments to maintain growing
stock level standards.
(0140) (07E)

03 Utilize firewood material using both commercial
and noncommercial methods.
(0147) (07E)

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

04 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (07E)

a. When the Visual Quality
Objective of an area is modifi-
cation or maximum modification,
the regenerated stand shall meet
or exceed all of the following
characteristics before a cut-
over area is no longer considered
an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole		

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Pine 30 75%

Engelmann
Spruce-
Subalpine
fir

30 75%

Aspen 30 75%

1/ Applies to trees specified as
minimum stocking level.

2/ Percent of plots or tran-
sects that are stocked.

(6014) (07E)

b. When the Visual
Quality Objective of an area
is partial retention, the re-
generated stand shall meet or
exceed all of the following
characteristics before a cut-
over area is no longer consider-
ed an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Height 1/ (% of the adjacent mature stand height)
-------------------------	--	---

Inland Ponderosa Pine	190	25
-----------------------------	-----	----

Mixed Conifers	190	25
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Lodgepole Pine	150	25
-------------------	-----	----

Engelmann

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Spruce - Sub- alpine fir	150	25
Aspen	300	25
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

- 1/ Applies to trees specified as
minimum stocking level.
2/ Percent of plots or transects
that are stocked.
(6316) (07E)

Timber Stand
Improvement
(E05)

01 Control undesirable understory vegetation to favor
tree growth.
(2527SJ) (07E)

a. Ponderosa Pine: Control Gambel
oak in stands at 10-year intervals
starting at a stand age of 30.

(8029SJ) (07E)

Transportation
System
Management
(L01 & 20)

01 Manage local constant roads to accommodate medium-light
seasonal use (SADT 10-50). Regulate seasonal public use by
closure if roadbed damage will occur.
(4793SJ) (07E)

a. Manage the area for a high den-
sity (one to three miles/square
mile) of constant roads.

(9326SJ) (07E)

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)
Local Road
Construction and
Reconstruction
(L11, 12, & 13)

02 Manage local intermittent roads to accommodate light use
(SADT 0-20). Close to public use.

(4728SJ) (07E)

01 Construct roads to support timber management activities
along with a mix of other resource activities. Design most
facilities for multi-resource use.

(4729SJ) (07E)

a. Construct or reconstruct local
constant roads to 75 percent modi-
fied gravel support.

(9327SJ) (07E)

b. Construct local intermittent
roads with no gravel support unless
needed to extend logging seasons.

(9328SJ) (07E)

02 Provide parking areas for dispersed recreationists along
system roads.

(4730SJ) (07E)

Road
Maintenance
(L19)

01 Maintain roads to support timber management activities
along with a mix of other resource activities.

(4731SJ) (07E)

a. Maintain local constant roads
to maintenance level three.

(9329SJ) (07E)

b. Maintain local intermittent
roads to maintenance level two when
open for project activities.

(9330SJ) (07E)

Trail
System
Management
(L23)

01 Provide trails for cross-country skiing, snowmobile,
foot, and horse travel.

(4732SJ) (07E)

a. Maintain trails to maintenance
level two.

(9331SJ) (07E)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is
cost efficient and that will meet management objectives
within the vegetation cover types.

(5026SJ) (07E)

a. Wildfire protection levels:

1) Pinon pine-juniper, gambel oak,
grasslands, aspen.

a) Confine or contain wildfires
burning at Fire Intensity
Levels (FIL) I and II.

MANAGEMENT PRESCRIPTION 07E

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fire Planning
and
Suppression
(P01)

- b) Effect control of wildfires burning at FIL's III and higher.
 - 2) Mixed browse, mixed conifers, Engelmann spruce and subalpine fir.
 - a) Promptly control wildfires burning at all FIL's.
 - 3) Inland ponderosa pine.
 - a) When stand age is < 30 years, promptly control wildfires burning at all FIL's.
 - b) When stand age is > 30 years, confine or contain wildfires burning at FIL's I and II; effect control of wildfires burning at FIL's III and higher.
- (9626SJ) (07E)

III-224

PREScription FOR MANAGEMENT AREA 8A

(Provides for pristine wilderness opportunities.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is for the protection and perpetuation of essentially pristine bio-physical conditions and a high degree of solitude for both wildlife and humans with no perceptible evidence of past human use.

All resource management activities are integrated in such a way that evidence of current human use, including permitted and recreation livestock, is not noticeable the following season, or so that natural biological processes are not adversely or artificially changed over time by human use.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Visual Resource Management (A04)	01 Design and implement management activities to maintain a pristine ecosystem. (0218) (08A)	a. The Adopted Visual Quality Objective (VQO) is Preservation. (6132) (08A)
Dispersed Recreation Management (A14 and 15)	01 Provide opportunities for primitive and unconfined recreation featuring solitude and to travel cross-country in an environment where success or failure is directly dependent on ability, knowledge and initiative. (0223) (08A) 02 Emphasize recreation opportunities on the most primitive end of the recreation opportunity spectrum. Manage use to provide very infrequent contact with other groups or individuals. (0224) (08A) 03 Limit specially permitted parties to not more than one per 2500 acres. (0226) (08A)	a. Maximum use and capacity levels are: - Trail and camp encounters during peak use days are less than 2 other parties per day. - Trail and area-wide use capacity: (1) Open lands, meadow and alpine: 0.001 to 0.002 PAOT per acre. (2) Forested lands and shrub lands: 0.003 to 0.007 PAOT per acre. - Reduce the above use levels where unacceptable changes to the biophysical resources are likely to occur. (6128) (08A)

MANAGEMENT PRESCRIPTION 08A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

04 Prohibit open fires in alpine, krummholz, meadow areas and within riparian areas when:

- a. Use of dead and down wood for fuel is likely to violate diversity requirements, soil nutrient and erosion protection, or
- b. Visual resource objectives for the area likely could not be met.

(0199) (08A)

05 Prohibit open fires when occurrence of fire-rings exceed Frissell class 1 site conditions on 10 percent or more of the known campsites within the management area.

(0251) (08A)

a. Provide Frissell condition classes 1 and 2 campsites only.

(6133) (08A)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Manage outfitter-guide operations in the same manner as other visitors. Permit camping only in sites specified in outfitter-guide permits. Keep outfitter-guide activities harmonious with activities of non-guided visitors. Include outfitter-guide operations in calculations of level-of-use capacities.

(0208) (08A)

Wildlife and
Fish Resource
Management
(G01)

01 Manage human activity so that wildlife and plant species population dynamics and distribution occurs naturally. Prohibit fish stocking except for reintroduction of indigenous species or where stocking has been previously authorized and practiced.

(0220) (08A)

Range Resource
Management
(D02)

01 Manage livestock and herbivorous wildlife forage use in accordance with FSM 2320.3 (36 CFR 293.7).

(0182) (08A)

a. Follow established utilization standards for areas, within grazing allotments.

(6130) (08A)

b. Limit utilization of forage to not more than 30 percent of current annual growth outside established allotments.

(6342) (08A)

c. Limit trampling of forage to not more than 40 percent of current annual herbaceous vegetation growth, outside established allotments.

MANAGEMENT PRESCRIPTION 08A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Range Resource
Management
(D02)

(6344) (08A)

Special Use
Management (Non-
Recreation)
(J01)

01 Permit only those uses authorized by wilderness
legislation, which cannot be reasonably met on non-
Wilderness lands.
(0211) (08A)

Soil Resource
Management
(KA1)

01 Restore soil disturbances caused by human use (past
mining, grazing, trail construction and use, camping, etc.)
to soil loss tolerance levels commensurate with the
natural ecological processes for the treatment area.
(0184) (08A)

a. Follow procedures
specified in Agricultural
Handbook 537 for Utilizing the
Universal Soil Loss Equation.
(Cautions contained in WD 2550
letter dated 5/28/82 should be
noted.) The guidance for K and
T factors are in the National
Soils Handbook 407.1 (a)(3)
(xvii).
(6159) (08A)

b. Provide Frissell condition
classes 1 and 2 campsites only.
(6133) (08A)

Trail
Construction and
Reconstruction
(L22)

01 Do not construct or reconstruct trails.
(0228) (08A)

FA&O
Construction
Reconstruction
and Maintenance
(L24 AND 25)

01 Prohibit man-made structures and facilities.
(0219) (08A)

III-228

MANAGEMENT PRESCRIPTION 08A

PREScription FOR MANAGEMENT AREA 8B

(Provides for primitive wilderness opportunities.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is to provide for the protection and perpetuation of natural bio-physical conditions. On-site regulation of recreation use is minimal. Travel is cross-country or by use of a low-density constructed trail system.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES									
Visual Resource Management (A04)	01 Design and implement management activities so that the impact of man is not apparent and the area appears in a condition affected only by natural biotic succession. (0230) (088)	a. The Adopted Visual Quality Objective (VQO) is Preservation. (6132) (088)									
Dispersed Recreation Management (A14 and 15)	01 Emphasize primitive recreation opportunities requiring a high degree of isolation, solitude, self-reliance and challenge while traveling cross-country or on system trails. (0231) (088) 02 Prohibit open fires in alpine, krummholz, meadow areas and within riparian areas when: a. Use of dead and down wood for fuel is likely to violate diversity requirements, soil nutrient and erosion protection, or b. Visual resource objectives for the area likely could not be met. (0199) (088) 03 Manage use to provide a low incidence of contact with other groups or individuals and to prevent unacceptable changes to the biophysical resources. (0301) (088)	a. Maximum use and capacity levels are: - Trail and camp encounters during peak use days are less than 6 other parties per day. - Trail and area-wide use capacity: ----- <table> <tr> <th>Use Level</th><th>Open Lands</th><th>Forest & Shrub Lands</th></tr> <tr> <td>On Trails (PAOT/Mile</td><td>0.5-1.0</td><td>2-3</td></tr> <tr> <td>(6372)</td><td>(088)</td><td></td></tr> </table>	Use Level	Open Lands	Forest & Shrub Lands	On Trails (PAOT/Mile	0.5-1.0	2-3	(6372)	(088)	
Use Level	Open Lands	Forest & Shrub Lands									
On Trails (PAOT/Mile	0.5-1.0	2-3									
(6372)	(088)										
		b. Area-wide Capacity: (PAOT/Acre) Open Lands Alpine, Krummholz .002 Rock, Mtn. grass .005									

MANAGEMENT PRESCRIPTION 088

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

Forest & Shrub Lands
Ponderosa Pine, Douglas-
fir, Riparian areas,
White Pine .01
Spruce/Fir, Lodge-
pole Pine, Aspen .02
(6336) (08B)

c. Reduce visitor use when
the level of use exceeds capacity
on more than 10 percent of the
days during summer and fall use
season.
(6374) (08B)

04 Manage sites to provide opportunity for moderate to
high degree of solitude.
(0626) (08B)

a. Use a minimum site spacing
of 500 feet.
(6338) (08B)

b. Occupied site guidelines:
(Maximum number of sites
occupied at one time.)
Lakes
 <5 acres 2
 5-25 acres 3
 >25 acres 4
Depending on site suitability/
availability
Streams and Trails
 Open areas 2 sites/mile
 Forested areas 4 sites/mile
(6340) (08B)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Manage outfitter-guide operations in the same manner
as other visitors. Permit camping only in sites specified
in outfitter-guide permits. Keep outfitter-guide activities
harmonious with activities of non-guided visitors. Include
outfitter-guide operations in calculations of level-of-use
capacities.
(0208) (08B)

Range Resource
Management
(D02)

01 Manage livestock and herbivorous wildlife forage use in
accordance with FSM 2320.3 (36 CFR 293.7).
(0182) (08B)

a. Follow established utili-
zation standards for areas, with-
in grazing allotments.
(6130) (08B)

MANAGEMENT PRESCRIPTION 08B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Special Use
Management (Non-
Recreation)
(J01)

01 Manage surface occupancy activities authorized prior to wilderness designation to reduce impact on wilderness values consistent with the intent of the occupancy authorization.

(0210) (08B)

02 Permit only those uses authorized by wilderness legislation, which cannot be reasonably met on non-Wilderness lands.

(0211) (08B)

Soil Resource
Management
(KA1)

01 Restore soil disturbances caused by human use (past mining, grazing, trail construction and use, camping, etc.) to soil loss tolerance levels commensurate with the natural ecological processes for the treatment area.

(0184) (08B)

a. Follow procedures specified in Agricultural Handbook 537 for Utilizing the Universal Soil Loss Equation. (Cautions contained in WO 2550 letter dated 5/28/82 should be noted.) The guidance for K and T factors are in the National Soils Handbook 407.1 (a)(3) (xvii).

(6159) (08B)

b. Provide Frissell condition classes 1 and 2 campsites only.

(6133) (08B)

Transportation
System
Management
(L01 & 20)

01 Locate and design required access roads within the management area for authorized activities to minimize the biophysical and visual impact, and to facilitate restoration.

(0213) (08B)

a. Roads will not be authorized:

- On slopes steeper than 60%;
- In areas of high erosion hazard;
- In areas of high geologic hazard;
- In areas of low visual absorption capacity that are unlikely for successful restoration;
- In areas which would adversely affect threatened and endangered plant and animal species.

(6165) (08B)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

02 Convert roads not needed for authorized activities
to trails, or if they are not needed as part of the
transportation system, restore them to the established VGO.
(0254) (08B)

a. Maintain trails in accordance
with standards in the Trail Hand-
book (FSH 7709.12).
(6129) (08B)

b. Schedule trail maintenance in
accordance with Regional Accept-
able Work Standards. (FSM
1310 R2 ID No. 1 7/22/82.)
(6131) (08B)

03 Construct or reconstruct trails only when needed to
meet objectives of the wilderness transportation system.
(0255) (08B)

a. Follow standards specified in
FSH 7709.12, FSM 2323.11c and
2323.61d w/R-2 Supplement.
(6134) (08B)

b. Trail density will be less
than one mile per square mile.
Trails are constructed and main-
tained for established capacity
levels.
(6161) (08B)

III-233

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

04 Construct bridges to only the standard necessary to accommodate the specified class of user. Construct bridges only where no safe opportunity exists to cross a stream or gorge during periods of normal stream flow.

A safety hazard is a physical condition of a trail which may cause injury, is unusual or unexpected, and not readily identifiable by the trail user. It is not a condition which is easily identifiable and normally encountered for the type or location of the trail involved. The following examples illustrate this distinction:

A hazard is a rotten bridge decking or handrail. A stream crossing where no bridge is provided and the user would expect this on the type and location of the trail is not a hazard.

A hazard is a stable-appearing loose rock in a constructed treadway where all other rocks are stable. A trail treadway made up of rocks in a near-natural position, many of which are loose, is not a hazard.

A hazard is a perennial bog-hole on a horse trail. An intermittent bog-hole which will dry up by early summer or within a few days following a rain storm is not a hazard.

A hazard is a section of trail treadway supported by rotten cribbing. A section of trail where the treadway is obviously slippery is not a hazard.

A hazard is a marked ford with holes deeper than the normal channel. A deep ford with a consistent stream bed is not a hazard.
(0214) (08B)

05 Use corduroy and/or puncheon treads across bogs where no safe and feasible bypass opportunity exists.
(0215) (08B)

06 Close or sign system trails when not maintained to the safe standard for the specified use.
(0216) (08B)

a. Maintain trails in accordance with standards in the Trail Handbook (FSH 7709.12).
(6129) (08B)

MANAGEMENT PRESCRIPTION 08B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

07 Use signs of unstained wood with routed letters
and mounted on unstained posts.
(0249) (088)

a. Follow standards specified in
FSH 7109.11a and 11b.
(6158) (088)

08 Provide signs at trail terminals and trail junctions
only. Include only trail identification and identification
of terminal points.
(0250) (088)

FA&D
Construction
Reconstruction
and Maintenance
(L24 AND 25)

01 Prohibit construction of new administrative fac-
ilities or structures. In the event a substantial
portion of the existing administrative facility and/
or structure is destroyed, it will not be replaced.
(0207) (088)

III-235

PREScription FOR MANAGEMENT AREA 8C
(Provides for semi-primitive wilderness opportunities.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is to provide for the protection and perpetuation of essentially natural bio-physical conditions. Solitude and a low level of encounters with other users or evidence of past use is not an essential part of the social setting. Human travel is principally on system trails. Designated campsites are used and show evidence of repeated, but acceptable levels of use.

All resource management activities are integrated in such a way that current human use leaves only limited and site-specific evidence of their passing. Areas with evidence of unacceptable levels of past use are rehabilitated and the affected area restored. Range allotments with authorized permanent structures, and authorized mineral exploration activities requiring multi-year surface occupancy facilities may be present within the area. Scientific and other authorized practices utilizing non-motorized equipment, but requiring up to season-long occupancy are compatible.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Visual Resource Management (A04)	01 Manage for maximum retention of the natural landscape. Design and locate management activities to meet the Visual Quality Objective of Preservation in all areas except where specific surface occupancy is authorized by Wilderness legislation. In these areas, the Visual Quality Objective is Retention. (0173) (08C)	
Dispersed Recreation Management (A14 and 15)	01 Provide semi-primitive recreation opportunities requiring predominately unmodified natural settings, with a moderate to high degree of challenge and risk while traveling cross-country or on trails. (0237) (08C) 02 Prohibit open fires in alpine, krummholz, meadow areas and within riparian areas when: a. Use of dead and down wood for fuel is likely to violate diversity requirements, soil nutrient and erosion protection, or b. Visual resource objectives for the area likely could not be met. (0199) (08C) 03 Permit undesignated sites in Frissell condition class 1 through 3 where unrestricted camping is permitted. (0174) (08C) 04 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites. (0175) (08C) 05 Manage summer use to allow moderate to high contact with other groups and individuals. (0752) (08C)	a. Areawide Capacity: (PAQT/Acre) Open lands Alpine, Krummholz .004 Rock, Mtn. grass .008 Forest and Shrub lands Ponderosa Pine, Douglas- fir, Riparian areas, White Pine .05 Spruce/fir, Lodgepole Pine, Aspen .08

MANAGEMENT PRESCRIPTION 08C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

(6126) (O8C)

b. Maximum use and capacity
levels are:

- Trail and camp encounters
during peak use days are less
than 20 other parties per day.
- Trail capacity is displayed
below:

Use Level	Open Lands	Forest & Shrub Lands
On Trails (PAOT/Mile)	2-3	9-11

(6346) (O8C)

c. Reduce visitor use when the
level of use exceeds capacity on
more than 20 percent of the days
during the summer use season.
(6019) (O8C)

06 Reduce visitor use when the level of use exceeds
capacity for more than 20 percent of the summer use
season.

(0489) (O8C)

07 Permits for parties larger than the established limit
may be issued when their presence can be adequately screen-
ed from the sights and sounds of other parties in the
area.

(0302) (O8C)

08 Manage location of campsites to provide a moderate
degree of solitude.

(0628) (O8C)

a. Locate campsites at least
300' apart.
(6348) (O8C)

b. Occupied Site Guidelines:
(Maximum number of sites occupied
at one time.)
Lakes < 5 acres 2

MANAGEMENT PRESCRIPTION O8C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

5-25 acres 3
>25 acres 4
Streams
Open areas 3 sites/mile
Forested areas 6 sites/mile
(6350) (OBC)

09 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4.
(0636) (OBC)

a. Allow sites to be occupied 20 days/summer season or to the level required to maintain at least a stable trend in site condition.
(6352) (OBC)

b. Close and restore Frissell condition class 4 sites unless a designated site. Close and restore class 5 sites.
(6354) (OBC)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Manage outfitter-guide operations in the same manner as other visitors. Permit camping only in sites specified in outfitter-guide permits. Keep outfitter-guide activities harmonious with activities of non-guided visitors. Include outfitter-guide operations in calculations of level-of-use capacities.
(0208) (OBC)

Range Resource
Management
(D02)

01 Manage livestock and herbivorous wildlife forage use in accordance with FSM 2320.3 (36 CFR 293.7).
(0182) (OBC)

a. Follow established utilization standards for areas, within grazing allotments.
(6130) (OBC)

Special Use
Management (Non-
Recreation)
(J01)

01 Manage surface occupancy activities authorized prior to wilderness designation to reduce impact on wilderness values consistent with the intent of the occupancy authorization.
(0210) (OBC)

02 Permit only those uses authorized by wilderness legislation, which cannot be reasonably met on non-Wilderness lands.
(0211) (OBC)

MANAGEMENT PRESCRIPTION OBC

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Soil Resource
Management
(KA1)

01 Restore soil disturbances caused by human use (past mining, grazing, trail construction and use, camping, etc.) to soil loss tolerance levels commensurate with the natural ecological processes for the treatment area.
(0184) (08C)

a. Follow procedures specified in Agricultural Handbook 537 for Utilizing the Universal Soil Loss Equation. (Cautions contained in WD 2550 letter dated 5/28/82 should be noted.) The guidance for K and T factors are in the National Soils Handbook 407.1 (a)(3) (xvii).
(6159) (08C)

Transportation
System
Management
(LO1 & 20)

01 Locate and design required access roads within the management area for authorized activities to minimize the biophysical and visual impact, and to facilitate restoration.
(0213) (08C)

a. Roads will not be authorized:

- On slopes steeper than 60%;
- In areas of high erosion hazard;
- In areas of high geologic hazard;
- In areas of low visual absorption capacity that are unlikely for successful restoration;
- In areas which would adversely affect threatened and endangered plant and animal species.

(6165) (08C)

02 Convert roads not needed for authorized activities to trails, or if they are not needed as part of the transportation system, restore them to the established VQD.
(0254) (08C)

a. Maintain trails in accordance with standards in the Trail Handbook (FSH 7709.12).
(6129) (08C)

b. Schedule trail maintenance in accordance with Regional Acceptable Work Standards. (FSM 1310 R2 ID No. 1 7/22/82.)
(6131) (08C)

03 Construct or reconstruct trails only when needed to meet objectives of the wilderness transportation system.
(0255) (08C)

a. Follow standards specified in FSH 7709.12, FSM 2323.11c and 2323.61d w/R-2 Supplement.
(6134) (08C)

MANAGEMENT PRESCRIPTION 08C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(LO1 & 20)

b. Trail density will not exceed two miles per square mile. Trails are constructed and maintained for moderate to high levels of use as specified below.
(6162) (08C)

O4 Construct bridges to only the standard necessary to accommodate the specified class of user. Construct bridges only where no safe opportunity exists to cross a stream or gorge during periods of normal stream flow.

A safety hazard is a physical condition of a trail which may cause injury, is unusual or unexpected, and not readily identifiable by the trail user. It is not a condition which is easily identifiable and normally encountered for the type or location of the trail involved. The following examples illustrate this distinction:

A hazard is a rotten bridge decking or handrail. A stream crossing where no bridge is provided and the user would expect this on the type and location of the trail is not a hazard.

A hazard is a stable-appearing loose rock in a constructed treadway where all other rocks are stable. A trail treadway made up of rocks in a near-natural position, many of which are loose, is not a hazard.

A hazard is a perennial bog-hole on a horse trail. An intermittent bog-hole which will dry up by early summer or within a few days following a rain storm is not a hazard.

A hazard is a section of trail treadway supported by rotten cribbing. A section of trail where the treadway is obviously slippery is not a hazard.

A hazard is a marked ford with holes deeper than the normal channel. A deep ford with a consistent stream bed is not a hazard.
(0214) (08C)

MANAGEMENT PRESCRIPTION 08C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

05 Use corduroy and/or puncheon treads across bogs where
no safe and feasible bypass opportunity exists.
(0215) (08C)

06 Close or sign system trails when not maintained to
the safe standard for the specified use.
(0216) (08C)

07 Use signs of unstained wood with routed letters
and mounted on unstained posts.
(0249) (08C)

08 Provide signs at trail terminals and trail junctions
only. Include only trail identification and identification
of terminal points.
(0250) (08C)

FA&D
Construction
Reconstruction
and Maintenance
(L24 AND 25)

01 Prohibit construction of new administrative fac-
ilities or structures. In the event a substantial
portion of the existing administrative facility and/
or structure is destroyed, it will not be replaced.
(0207) (08C)

a. Maintain trails in accordance
with standards in the Trail Hand-
book (FSH 7709.12).
(6129) (08C)

a. Follow standards specified in
FSH 7109.11a and 11b.
(6158) (08C)

III-242

PREScription FOR MANAGEMENT AREA 8D

(Provides for limited areas of high-density day-use.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is to provide for the protection and perpetuation of essentially natural bio-physical conditions inside wilderness boundaries which are adjacent to and accessed from urban or rural developments or heavily used developed recreation sites. Human use is characterized by large numbers of day-users traveling relatively short distances into the wilderness.

Management activities are integrated so that the bio-physical wilderness resources are protected from unacceptable change, and day-users are made aware of the purposes of wilderness management. Management is directed towards providing a generally natural appearing setting. A trail system directs the user within the area and leads the overnight user through to other management areas. Opportunities to make official visitor contacts are frequent. There are no developed sites within the wilderness. Facilities such as bridges necessary for user safety or bio-physical resource protection may be present.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Visual Resource Management (A04)	01 Manage for maximum retention of the natural landscape. Design and locate management activities to meet the Visual Quality Objective of Preservation in all areas except where specific surface occupancy is authorized by Wilderness legislation. In these areas, the Visual Quality Objective is Retention. (0173) (08D)	
Dispersed Recreation Management (A14 and 15)	01 Provide semi-primitive recreation opportunities requiring a predominately unmodified natural setting with a low degree of challenge and risk and travel on system trails. (0245) (08D)	a. Designated sites will be spaced only as required for reasonable screening between sites or at least 100 feet apart. (6358) (08D)
		b. Close and restore sites in Frissell condition class 5. Designated sites may occur in Frissell condition class 1 through 4. (6360) (08D)
		c. Prohibit recreation livestock except for through travel. (6362) (08D)
		d. Require self-contained stoves. Prohibit open campfires. (6364) (08D)
	02 Manage for day-use and through-travel and to prevent unacceptable changes to the biophysical resources. (0243) (08D)	
	03 Allow overnight camping only at designated sites where conflict with day-use can be avoided. (0630) (08D)	a. Maximum use and capacity levels is reached when trail and camp encounters during peak-use days are more than 20 other parties per day.
		AREAWIDE CAPACITY (PAOT/Acre)
		Open Lands Alpine, Krummholz . 04

MANAGEMENT PRESCRIPTION 08D

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

Rock, Mtn. Grass .08
Forest and Shrub Lands
Ponderosa pine, Douglas-
fir, Riparian areas,
White Pine .5
Spruce/fir, Lodgepole
pine, aspen .8
(6125) (08D)

b. Reduce the above use level
coefficients as necessary to re-
flect usable acres, patterns of
use, and general attractiveness
of the specific management area
type as described in the ROS
Users Guide, Chapter 25.

Reduce the above use levels
where unacceptable changes to the
biophysical resources will occur.
(6356) (08D)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Permit only through-travel for outfitter-guide
operations during the summer-use season.
(0248) (08D)

Wildlife and
Fish Resource
Management
(G01)

01 Protect habitat requirements over human use, even on
a short-term basis. Priorities are:
a. State and Federal classified threatened
or endangered species needs;
b. Permitted livestock where allowed by Wilderness
legislation; and
c. Recreation livestock.
(0178) (08D)

Range Resource
Management
(D02)

01 Prohibit grazing and trailing of permitted
livestock except where no feasible alternative access
to an allotment is available.
(0241) (08D)

MANAGEMENT PRESCRIPTION 08D

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
CONTINUATION OF: Range Resource Management (D02)	<p>02 Manage meadows and lakeshores in "good" range condition. Limited areas of "fair" are permissible in areas of user concentrations. However, "fair" areas must be exhibiting an upward trend. (0235) (08D)</p> <p>03 Prohibit overnight use of recreational stock. (0247) (08D)</p> <p>04 Maintain trailside vegetation in at least a "fair or better" condition based upon natural productivity of the area. (0234) (08D)</p>	<p>a. Base range condition on the standards in Range Analysis Handbook (FSH 2209.21). (6156) (08D)</p>
Special Use Management (Non- Recreation) (J01)	<p>01 Manage surface occupancy activities authorized prior to wilderness designation to reduce impact on wilderness values consistent with the intent of the occupancy authorization. (0210) (08D)</p> <p>02 Permit only those uses authorized by wilderness legislation, which cannot be reasonably met on non-Wilderness lands. (0211) (08D)</p>	
Soil Resource Management (KA1)	<p>01 Restore soil disturbances caused by human use (past mining, grazing, trail construction and use, camping, etc.) to soil loss tolerance levels commensurate with the natural ecological processes for the treatment area. (0184) (08D)</p> <p>02 Manage designated campsites to Frissell condition class 3. (0242) (08D)</p>	<p>a. Follow procedures specified in Agricultural Handbook 537 for Utilizing the Universal Soil Loss Equation. (Cautions contained in WO 2550 letter dated 5/28/82 should be noted.) The guidance for K and T factors are in the National Soils Handbook 407.1 (a)(3) (xvii). (6159) (08D)</p>

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Transportation
System
Management
(L01 & 20)

01 Locate and design required access roads within the management area for authorized activities to minimize the biophysical and visual impact, and to facilitate restoration.
(0213) (08D)

a. Roads will not be authorized:

- On slopes steeper than 60%;
- In areas of high erosion hazard;
- In areas of high geologic hazard;
- In areas of low visual absorption capacity that are unlikely for successful restoration;
- In areas which would adversely affect threatened and endangered plant and animal species.

(6165) (08D)

02 Convert roads not needed for authorized activities to trails, or if they are not needed as part of the transportation system, restore them to the established VQD.
(0254) (08D)

a. Maintain trails in accordance with standards in the Trail Handbook (FSH 7709.12).

(6129) (08D)

b. Schedule trail maintenance in accordance with Regional Acceptable Work Standards. (FSM 1310 R2 ID No. 1 7/22/82.)

(6131) (08D)

03 Construct or reconstruct trails only when needed to meet objectives of the wilderness transportation system.
(0255) (08D)

a. Follow standards specified in FSH 7709.12, FSM 2323.11c and 2323.61d w/R-2 Supplement.

(6134) (08D)

b. Trail density may exceed two miles per square mile. Trails are constructed and maintained for high levels of use as specified below.

(6163) (08D)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(LO1 & 20)

04 Construct bridges to only the standard necessary to accommodate the specified class of user. Construct bridges only where no safe opportunity exists to cross a stream or gorge during periods of normal stream flow.

A safety hazard is a physical condition of a trail which may cause injury, is unusual or unexpected, and not readily identifiable by the trail user. It is not a condition which is easily identifiable and normally encountered for the type or location of the trail involved. The following examples illustrate this distinction:

A hazard is a rotten bridge decking or handrail. A stream crossing where no bridge is provided and the user would expect this on the type and location of the trail is not a hazard.

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A hazard is a perennial bog-hole on a horse trail. An intermittent bog-hole which will dry up by early summer or within a few days following a rain storm is not a hazard.

A hazard is a section of trail treadway supported by rotten cribbing. A section of trail where the treadway is obviously slippery is not a hazard.

A hazard is a marked ford with holes deeper than the normal channel. A deep ford with a consistent stream bed is not a hazard.
(0214) (08D)

05 Use corduroy and/or puncheon treads across bogs where no safe and feasible bypass opportunity exists.
(0215) (08D)

06 Close or sign system trails when not maintained to the safe standard for the specified use.
(0216) (08D)

a. Maintain trails in accordance with standards in the Trail Handbook (FSH 7709.12).
(6129) (08D)

MANAGEMENT PRESCRIPTION 08D

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

07 Use signs of unstained wood with routed letters
and mounted on unstained posts.
(0249) (08D)

a. Follow standards specified in
FSH 7109.11a and 11b.
(6158) (08D)

08 Provide signs at trail terminals and trail junctions
only. Include only trail identification and identification
of terminal points.
(0250) (08D)

FA&D
Construction
Reconstruction
and Maintenance
(L24 AND 25)

01 Prohibit construction of new administrative fac-
ilities or structures. In the event a substantial
portion of the existing administrative facility and/
or structure is destroyed, it will not be replaced.
(0207) (08D)

III-249

PREScription FOR MANAGEMENT AREA 9A

(Emphasis is on riparian area management.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Emphasis is on the management of all of the component ecosystems of riparian areas. These components include the aquatic ecosystem, the riparian ecosystem (characterized by distinct vegetation), and adjacent ecosystems that remain within approximately 100 feet measured horizontally from both edges of all perennial streams and from the shores of lakes and other still water bodies. All of the components are managed together as a land unit comprising an integrated riparian area, and not as separate components.

The goals of management are to provide healthy, self-perpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water-body shorelines. The aquatic ecosystem may contain fisheries habitat improvement and channel stabilizing facilities that harmonize with the visual setting and maintain or improve wildlife or fish habitat requirements. The linear nature of streamside riparian areas permits programming of management activities which are not visually evident or are visually subordinate.

Forest riparian ecosystems are treated to improve wildlife and fish habitat diversity through specified silvicultural objectives. Both commercial and non-commercial vegetation treatments are used to achieve multi-resource benefits. Clearcutting is used to regenerate aspen clones. Other forest cover types are treated with either small-group or single-tree selection methods.

Livestock grazing is at a level that will assure maintenance of the vigor and regenerative capacity of the riparian plant communities. Vehicular travel is limited on roads and trails at times when the ecosystems would be unacceptably damaged. Developed recreation facility construction for overnight use is prohibited within the 100-year floodplain.

The management area over which this prescription is to be applied will also be affected by several management activities in the Forest-wide direction. Most notable is the direction involving upland zones, in the Water Resource Improvement and Maintenance management activity, and elsewhere.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession unless specific vegeta- tion treatment is necessary to meet other resource objec- tives or for insect and disease control. (0033SJ) (09A)	
Cultural Resource Management (A02)	01 Allow recreation and non-recreation use of suitable cul- tural resource properties to the extent that such uses do not conflict with riparian and aquatic values. Limit inter- pretation to low cost developments such as interpretive signing. (0539SJ) (09A)	
Visual Resource Management (A04)	01 Design and implement management activities which sustain inherent visual values of riparian areas and blend with the surrounding natural landscapes. (0656) (09A)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of Partial Retention. (6135) (09A)
Dispersed Recreation Management (A14 and 15)	01 Semi-primitive nonmotorized, semi-primitive motorized, roaded natural and rural recreation opportunities can be provided. (0445) (09A) 02 The recreation opportunity provided as an overall objec- tive will generally be that opportunity being emphasized on the management area adjacent to, or bisected by, the ripar- ian management area. (0542SJ) (09A)	a. Maximum Use and Capacity Levels are: ----- Recreation use and capacity range during the snow-free period (PAQT/ acre): ----- Trail use and capacity range (PAQT/ mile of trail): ----- Capacity Range* Glass Very Moder- Low Low ate High ROS Class - Semi-Primitive Non-motorized ----- On Trails

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
RDS Class - Semi-Primitive Motorized				
On Trails				
PAOT/mile	2.0	3.0	9.0	11.0
Area-wide				
PAOT/acre	.004	.008	.05	.08
RDS Class - Roaded Natural				
On Trails				
PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.04	.08	1.2	2.5
RDS Class - Rural				
On Trails				
PAOT/mile	-	-	-	-
Area-wide				
PAOT/acre	.5	.8	5.0	7.5
Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the RDS Users Guide, Chapter 25.				
Reduce the above use levels where unacceptable changes to the bio-physical resources will occur.				
* VERY LOW applies to alpine.				
LOW applies to rock, mtn. grass and clearcuts 1-20 years old.				

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

MODERATE applies to mtn. grass,
PP size class 9, 8 and 7, DF size
class 9, 8 and 7, Aspen size
class 9, SF size class 7, shel-
terwood cuts 90-120 years old,
selection cuts 1-20 years old and
clearcuts 80-120 years old.

HIGH applies to SF size class 9
and 8, Aspen size class 8 and 7
and clearcuts 20-80 years old.

(6428SJ) (09A)

b. Specify off-road vehicle
restrictions based on ORV
use management (FSM 2355,
R2 Supp. 88).
(6083) (09A)

c. See FSM 2331, FSM 7732,
FSH 7709.12 (Trails
Handbook), FSH 7109.11a
and 11b (Sign Handbook).
(6226) (09A)

03 Permit undesignated sites in Frissell condition class 1
through 3 where unrestricted camping is permitted.
(0174) (09A)

04 Manage site use and occupancy to maintain sites with-
in Frissell condition class 3 except for designated
sites which may be class 4. Close and restore class 5
sites.
(0175) (09A)

05 Close riparian areas to motorized vehicles operating off
roads except at designated right angle crossings. This does
not apply to over snow vehicles operating on snow.

(4760SJ) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

01 Provide habitat diversity through vegetation treatments, in conjunction with other resource activities, designed to maintain or improve wild-life or fisheries habitat.
(0658) (09A)

02 Provide habitat for viable populations of all native vertebrate species of fish and wildlife.
(0750) (09A)

03 Manage riparian areas to reach the latest seral stage possible within the stated objectives.
(0402) (09A)

a. Maintain all riparian eco-systems in at least an upper mid-seral successional stage based upon the R2 Riparian Eco-system Rating System.
(6147) (09A)

04 Manage riparian areas identified as essential habitat for indicator species by retaining suitable habitats.

a) Beaver: Introduce and control beaver populations in suitable riparian/aquatic areas with the assistance of State wildlife agencies, where such actions would be beneficial to riparian management.

b) Cutthroat, Rainbow, Brown, and Brook Trout: Implement structural and non-structural improvements to maintain or improve fisheries habitat in aquatic ecosystems. In streams and rivers, develop habitat that will provide protective cover for trout during low water and escape and feeding cover during periods of low flow.

c) River Otter: Manage river otter habitat under guidelines and trapping regulations jointly agreed to between San Juan National Forest and Colorado Division of Wildlife.

(15375J) (09A)

05 Plan lake and stream habitat improvement projects with the assistance of state wildlife agencies, where aquatic habitats are below productive potential. Plan those improvements that harmonize with the visual setting.
(0660) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Wildlife
Habitat
Improvement and
Maintenance
(C02, 04, 05
and 06)

06 Maintain a current fish habitat inventory in co-
operation with state wildlife agencies.
(0662) (09A)

07 Maintain instream flows in cooperation with state
wildlife agencies to support a sustained yield of
natural fisheries resources.
(0664) (09A)

Range Resource
Management
(D02)

01 Maintain proper stocking and livestock distribution
to protect riparian ecosystems.
(0666) (09A)

02 Prohibit trailing of livestock along the length of
riparian areas except where existing stock driveways
occur. Rehabilitate existing stock driveways where
damage is occurring in riparian areas. Relocate
them outside riparian areas if possible, and if
necessary to achieve riparian-area goals.
(0108) (09A)

03 Where ground cover standards are not met or other ripar-
ian ecosystem degradation is occurring from grazing:

- a) Implement intensive management systems (rest-rotation,
deferred-rotation or rotation) which remove grazing from
riparian areas at least part of the year, or;
- b) Reduce stocking to a level that will allow degraded areas
to recover, or;
- c) Use temporary site specific exclusion fencing.

(2040SJ) (09A)

04 Favor utilization of non-riparian forage over riparian
by developing off-stream water sources and placement of salt
blocks out of riparian areas.

(2041SJ) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Manage forest cover types to perpetuate tree cover
and provide healthy stands, high water quality and
wildlife and fish habitat.
(0088) (09A)

02 Manage Forest Cover Types using the following
harvest methods:

- Clearcut in aspen, and
- Selection (Group or Single tree) in all other
cover types.
(0486) (09A)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.
(6074) (09A)

b. Silvicultural Standards:
(These standards may be exceeded
on areas managed for old
growth)

1. Clearcut:

Forest Cover Type	
Aspen	
Rotation Age	80-120 yrs.

2. Selection (group or single
tree):

All other Forest Cover Types	
Rotation Age	70-160
Gutting Cycle	20-30 yrs

For group selection, size of open-
ings are less than two acres.

III-256

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

(6154) (09A)

03 Timber will be available on a low yield basis, although sustained non-declining timber yield is not planned. Harvest timber to meet wildlife, visual, and other resource needs. Timber production will not be considered a primary management objective in riparian areas.

(2540SJ) (09A)

04 Apply intermediate treatments to maintain growing stock level standards.

(0140) (09A)

05 Adjust stocking levels by site quality, higher stocking should occur on better sites.

(0668) (09A)

06 Utilize firewood material using both commercial and noncommercial methods.

(0147) (09A)

07 Establish a satisfactory stand either naturally or through artificial regeneration methods within a five-year period after disturbance.

(0726) (09A)

08 Prohibit log landing and decking areas within the riparian area.

(0670) (09A)

09 Reduce debris jam potential by cutting stumps to near ground level in the 100-year floodplain.

(0672) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

10 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (09A)

a. When the Visual
Quality Objective of an area
is partial retention, the re-
generated stand shall meet or
exceed all of the following
characteristics before a cut-
over area is no longer consid-
ered an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Height 1/ (% of the adjacent mature stand height)
Inland Ponderosa Pine	190	25
Mixed Conifers	190	25
Lodgepole Pine	150	25
Engelmann Spruce - Sub- alpine fir	150	25
Aspen	300	25
Forest Cover Type	Grown Closure (Percent)	Distri- bution 2/ (Percent)
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole		

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Pine 30 75%

Engelmann
Spruce-
Subalpine 30 75%
fir

Aspen 30 75%

1/ Applies to trees specified as
minimum stocking level.

2/ Percent of plots or transects
that are stocked.

(6316) (09A)

Water Resource
Improvement and
Maintenance
(F05 and 06)

01 Prevent or remove debris accumulations that reduce
stream channel stability and capacity.
(0001) (09A)

02 Proposed new land-use facilities (roads, campgrounds,
buildings) will not normally be located within flood-
plain boundaries for the 100-year flood. Protect
present and all necessary future facilities that
cannot be located out of the 100-year floodplain by
structural mitigation (deflection structures, riprap,
etc.).
(0488) (09A)

a. Implement mitigation measures
when present or unavoidable future
facilities are located in the ac-
tive floodplain to ensure that
State water quality standards,
sediment threshold limits, bank
stability criteria, flood hazard
reduction and instream flow
standards are met during and
immediately after construction.
(6604) (09A)

03 Prevent stream channel instability, loss of channel
cross-sectional areas, and loss of water quality
resulting from activities that alter vegetative cover.
(0007) (09A)

04 Maintain sediment yield within threshold limits.
The effects on water and sediment yields from vegeta-
tion manipulation and road construction projects will
be determined through the use of appropriate modeling
and/or quantification procedures to determine sediment
yield threshold limits and water yield increase
potentials.
(0632) (09A)

a. Limit Changes in Channel rating
or classification scores to an
increase of 10 percent or less.
Use channel stability criteria
established by Cooper, 1978 and
Pfankuch, 1975. Use channel
classification criteria estab-
lished by Rosgen, 1980.
(6001) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Water Resource
Improvement and
Maintenance
(F05 and 06)

b. Prescription-induced water yield increases should not exceed prescribed thresholds of allowable increase nor should the total yield of water and sediment exceed maximum allowable amounts as stated in the above references.
(6060) (09A)

c. Maintain at least 80 percent of potential ground cover within 100 ft. from the edges of all perennial streams, lakes and other waterbodies, or to the outer margin of the riparian ecosystem, where wider than 100 feet.
(6650) (09A)

05 Avoid channelization of natural streams. Where channelization is necessary for flood control or other purposes, use stream geometry relationships to re-establish meanders, width/depth ratios, etc. consistent with each major stream type.
(0680) (09A)

06 Treat disturbed areas resulting from management activities, to reduce sediment yields to the natural erosion rates in the shortest possible time.
(0684) (09A)

07 Stabilize streambanks which are damaged beyond natural recovery in a reasonable time period with appropriate methods or procedures that emphasize control by vegetation.
(0686) (09A)

08 Design and locate settling ponds to reduce downstream sediment yield and to prevent washout during high water. Locate settling ponds outside of the active channel. Restore any channel changes to hydraulic geometry standards for each stream type.
(0688) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Water Resource
Improvement and
Maintenance
(F05 and 06)

- 09 Include wildlife and fish habitat, aesthetic, or safety goals when planning projects that result in vegetation type conversion.
(0690) (09A)
- 10 Require concurrent monitoring to ensure that mitigative measures are effective and in compliance with state water quality standards.
(0692) (09A)

Soil Resource
Management
(KA1)

- 01 Rehabilitate disturbed soils areas where adverse impacts would occur according to the following priorities:
- Aquatic ecosystems;
 - Riparian ecosystems; and
 - Riparian areas outside of aquatic and riparian ecosystems.
- (0091) (09A)
- 02 Prevent soil surface compaction and disturbance in riparian ecosystems. Allow use of heavy construction equipment for construction, residue removal, etc., during periods when the soil is least susceptible to compaction or rutting.
(0003) (09A)
- 03 Maintain or enhance the long-term productivity of soils within the riparian ecosystem.
(0694) (09A)

Mining Law
Compliance and
Administration
(G01)

- 01 Minimize detrimental disturbance to the riparian area by mineral activities. Initiate timely and effective rehabilitation of disturbed areas and restore riparian areas to a state of productivity comparable to that before disturbance.
(0706) (09A)

a. Prohibit the depositing of soil material from drilling, processing, or site preparation in natural drainageways.
(6612) (09A)

b. Locate the lower edge of disturbed or deposited soil banks outside the active floodplain.
(6614) (09A)

c. Prohibit stockpiling of topsoil or any other disturbed soil in the active floodplain.

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Mining Law
Compliance and
Administration
(G01)

02 Locate mineral removal activities away from the
water's edge or outside the riparian area.
(0708) (09A)

03 Design and locate placer mine settling ponds to
prevent washout during high water. Locate settling
ponds outside of the active channel. Restore any
channel changes to hydraulic geometry standards for
each stream type.
(0710) (09A)

04 Confine heavy equipment use to areas necessary for
mineral extraction.
(0712) (09A)

05 Locate mining camps outside the active floodplain.
(0716) (09A)

(6616) (09A)

d. Prohibit mineral processing
(milling) activities within the
active floodplain.
(6618) (09A)

e. Discontinue heavy equipment
use when soil compaction, rutting,
and puddling is present.
(6620) (09A)

a. Locate drilling mud pits out-
side the active floodplain unless
alternate locations are more envi-
ronmentally damaging. If location
is unavoidable, seal and dike all
pits to prevent leakage.
(6624) (09A)

b. Drain and restore roads, pads,
and drill sites immediately after
use is discontinued. Revegetate
to 80 percent of ground cover
in the first year. Provide sur-
face protection during storm-
flow and snowmelt runoff
events. ↓
(6626) (09A)

a. Permit diversion activities
within the riparian zone where
technology is available to
maintain water quality standards,
sediment threshold limits, and
instream flow standards.
(6622) (09A)

III-262

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Mining Law
Compliance and
Administration
(G01)
Transportation
System
Management
(L01 & 20)

06 Require concurrent monitoring to ensure that
mitigative measures are effective and in compliance with
State water quality standards.
(0714) (09A)

01 Locate roads and trails outside riparian areas
unless alternative routes have been reviewed and re-
jected as being more environmentally damaging.
(0718) (09A)

a. Do not parallel streams when
road location must occur in ripar-
ian areas except where absolutely
necessary. Cross streams at right
angles. Locate crossings at
points of low bank slope and
firm surfaces.
(6628) (09A)

b. Maintain the natural width-to-
depth ratio of the stream at chan-
nel crossing.

(9342SJ) (09A)

02 Continue the adjoining road and trail standards for
transportation/travel management through riparian zones when
feasible.

(4761SJ) (09A)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Create artificial sediment traps with barriers
where the natural vegetation is inadequate to protect
the waterway or lake from significant accelerated
sedimentation.
(0720) (09A)

02 Minimize detrimental disturbance to the riparian
area by construction activities. Initiate timely and
effective rehabilitation of disturbed areas and restore
riparian areas so that a vegetation ground cover or
suitable substitute protects the soil from erosion
and prevents increased sediment yield.
(0724) (09A)

a. Establish vegetation ground
cover on disturbed areas (exclud-
ing the running surface) to at
least 60 percent within two years.
On low productivity sites, estab-
lish to at least 40 percent ground
cover.

(9343SJ) (09A)

03 Stabilize fill around road crossings and culverts.

(4762SJ) (09A)

MANAGEMENT PRESCRIPTION 09A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Local Road
Construction and
Reconstruction
(L11, 12, & 13)

04 Schedule construction activities during dry periods, low water periods, or during frozen conditions.

(4763SJ) (09A)

05 Establish fords only under conditions which will not cause significant streambank erosion. These conditions are where:

a. Stream channel and bank are bedrock, rubble or gravel.

b. Bank slopes are low with firm surface.

(4765SJ) (09A)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is cost-efficient and that will meet objectives of adjacent management areas.

(5033SJ) (09A)

02 Rehabilitate all firelines prior to demobilizing the fire. Include water bars and seeding.

(5027SJ) (09A)

03 Discourage location of fire camps in riparian areas. If they are necessary, provide sanitation facilities to avoid surface or ground water pollution.

(5028SJ) (09A)

Fuel Treatment
(P11 thru 14)

01 Accomplish fuel removal primarily by hand crews to prevent water quality degradation and to avoid disturbance from dozer-constructed fuel breaks.

(5029SJ) (09A)

MANAGEMENT PRESCRIPTION 09A

PREScription FOR MANAGEMENT AREA 9B

(Emphasis is on increased water yield through vegetation manipulation.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is on increased water yield and improved timing of flow through manipulation of forest vegetation. The location, shape, and size of vegetation treatment areas are specifically designed. Clearcutting is the harvest method used with all forest cover types. Management activities in foreground, middleground, and background may dominate, but harmonize and blend with the natural setting.

Livestock grazing occurs but not to the point that regeneration of forested areas or water-yield objectives are impaired. Semi-primitive recreation is the predominant recreation use. Motorized travel may be prohibited.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	<p>01 Manage for natural succession in non-commercial forest and non-forest cover types. (0028SJ) (09B)</p> <p>02 Manage commercial forest cover types to meet diversity objectives through harvest treatments specified under management activity "Silvicultural Prescriptions." (0041SJ) (09B)</p> <p>03 Partially maintain vegetation diversity by maintaining present aspen percentage. (0031SJ) (09B)</p>	
Cultural Resource Management (A02)	<p>01 Allow recreation and non-recreation use of suitable cultural resource properties to the extent that such uses do not conflict with other resource uses. Limit interpretation to low cost developments such as interpretive signing. (0532SJ) (09B)</p>	
Visual Resource Management (A04)	<p>01 Management activities in foreground and middleground dominate, but harmonize and blend with the natural setting. Management activities may also dominate but appear natural when seen as background. (0263) (09B)</p>	<p>a. Do not exceed an Adopted Visual Quality Objective (VGO) of modification. (6267) (09B)</p>
Dispersed Recreation Management (A14 and 15)	<p>01 Semi-primitive nonmotorized, semi-primitive motorized, roaded natural and rural recreation opportunities can be provided. (0445) (09B)</p>	

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

02 Provide roaded natural recreation opportunities within 1/2 mile of Forest arterial, collector and local roads with better than primitive surfaces which are open to public travel.

Provide semi-primitive motorized recreation opportunities with a low to moderate incidence of contact with other groups and individuals within 1/2 mile of designated local roads with primitive surfaces and trails open to motorized recreation use.

Where local roads are closed to public motorized recreation travel, provide for dispersed non-motorized recreation opportunities. Manage recreation use to provide for the incidence of contact with other groups and individuals appropriate for the established ROS class.

Provide semi-primitive non-motorized recreation opportunities in all areas more than 1/2 mile away from roads and trails open to motorized recreation use.

(0650) (09B)

a. Maximum Use and Capacity
Levels are:

Recreation use and capacity
range during the snow-free
period (PAOT/acre):

Trail use and capacity range
(PAOT/mile of trail):

Capacity Range

Use Level	Very Low	Low	Moder- ate	High
--------------	-------------	-----	---------------	------

ROS Class - Semi-Primitive
Nonmotorized

On Trails PAOT/mile	2.0	3.0	9.0	11.0
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Area-wide PAOT/acre	.004	.008	.05	.08
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ROS Class - Semi-Primitive
Motorized

On Trails PAOT/mile	2.0	3.0	9.0	11.0
------------------------	-----	-----	-----	------

Area-wide PAOT/acre	.004	.008	.05	.08
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ROS Class - Roaded Natural

On Trails PAOT/mile	-	-	-	-
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Area-wide PAOT/acre	.04	.08	1.2	2.5
------------------------	-----	-----	-----	-----

ROS Class - Rural

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:

Dispersed
Recreation
Management
(A14 and 15)

On Trails
PAOT/mile - - - - -
Area-wide
PAOT/acre .5 .8 5.0 7.5

Reduce the above use level coefficients as necessary to reflect usable acres, patterns of use, and general attractiveness of the specific management area type as described in the RDS Users Guide, Chapter 25.

Reduce the above use levels where unacceptable changes to the biophysical resources will occur.
(6402) (09B)

b. Specify off-road vehicle restrictions based on ORV use management (FSM 2355, R2 Supp. 88).
(6083) (09B)

c. See FSM 2331, FSM 7732, FSH 7709.12 (Trails Handbook), FSH 7109.11a and 11b (Sign Handbook).
(6226) (09B)

03 Permit undesignated sites in Frissell condition class 1 through 3 where unrestricted camping is permitted.
(0174) (09B)

04 Manage site use and occupancy to maintain sites within Frissell condition class 3 except for designated sites which may be class 4. Close and restore class 5 sites.
(0175) (09B)

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Dispersed
Recreation
Management
(A14 and 15)

05 Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails in alpine shrub and Krummholz ecosystems. Prohibit motorized vehicle use off Forest System roads and trails (except snowmobiles operating on snow) in other alpine, and other ecosystems, where needed to protect soils, vegetation, or special wildlife habitat.
(0154) (09B)

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

01 Maintain wildlife habitat effectiveness. Permanent openings may be employed. Reduce disturbance to wildlife so that no significant long-term negative wildlife effects result.
(0155) (09B)

02 Limit investments in wildlife habitat projects to those that do not cause immediate or long-term reductions in water quantity. Favor indicator species through timber management activities where possible.

(1533SJ) (09B)

a. Deer, Elk, and Bear:

Restrict disruptive human activity in calving and fawning areas during the last two weeks of May and the first two weeks of June.

(7233SJ) (09B)

b. Hairy Woodpecker and Mountain Bluebird:

Protect and/or provide 20 snags/10 acres in all forested types. Also provide for snag replacement.

(7227SJ) (09B)

c. Goshawk:

Prohibit disruptive management activities within 300 feet of any occupied raptor nests during the period May 1 through July 31.

(7231SJ) (09B)

III-269

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range Resource
Management
(D02)

01 Utilize extensive management systems such as season-
long or deferred grazing.

(2031SJ) (09B)

02 Protect regeneration from livestock damage in areas man-
aged for timber production.

(2051SJ) (09B)

a. Vary utilization standards
with grazing system and ecological
condition. Specify standards in
the allotment management plan.
(6071) (09B)

a. Exclude livestock from planta-
tions and naturally regenerating
areas when utilization of useable
forage exceeds 20 percent or when
seedling stocking is less than the
desired number per acre as shown in
Forest Direction under management
activity "Reforestation."

(7626SJ) (09B)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Construct and maintain allotment boundary fences, short
drift fences and water developments necessary to implement
management systems.

(2033SJ) (09B)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Harvest forest cover types using the clearcut
harvest method.

(0265) (09B)

a. Apply harvest treatments to
forest cover types as specified
below on at least 80 % of the
forest cover type. Up to
20 percent of the type may be
treated using other harvest
methods specified in Forest
Direction.

(6074) (09B)

b. Silvicultural Standards:

1) Clearcuts:*

Forest Cover Type			
			Engelmann spruce-
			subalpine
		Inland	fir&Mixed
		Ponderosa	Conifer
	Aspen	Pine	
Rota-	70-90	N/A	180-200

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

tion Age	Yrs	Yrs
Grow- ing Stock Level	N/A	N/A
Thinning cycle	N/A	N/A

* The largest increase in water available for stream flow results when 30 to 40 percent of a drainage is harvested in small clearcut patches (3 to 10 acres) dispersed throughout the area of a watershed. (Leaf and Alexander FS Res. Pap. RM 133).

The clearcuts should be concentrated on lower to mid-slope positions in lower energy aspects (N, NE, NW). The clearcuts should be 5 to 7 tree heights in width.

Inland ponderosa pine is not managed for timber production under this prescription. It may be harvested in small clearcut patches for increased water yield; however, regeneration will not be assured within five years of harvest.

(B062SJ) (09B)

02 Utilize firewood material using both commercial and noncommercial methods.
(0147) (09B)

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

03 For management purposes, a cut-over area is
considered an opening until such time as:

- Increased water yield drops below 50
percent of the potential increase;
- Forage and/or browse production drops
below 40 percent of potential production;
- Deer and elk hiding cover reaches 60
percent of potential;
- Minimum stocking standards by forest
cover type and site productivity are
met; and
- The area appears as a young forest rather
than a restocked opening, and takes on the
appearance of the adjoining characteristic
landscape.

(0500) (09B)

a. When the Visual Quality
Objective of an area is modifi-
cation or maximum modification,
the regenerated stand shall meet
or exceed all of the following
characteristics before a cut-
over area is no longer considered
an opening:

Forest Cover Type	Minimum Stocking Level (Trees/ acre)	Tree Stand Height (ft.) 1/
Inland Ponderosa Pine	190	6
Mixed Conifers	190	6
Lodgepole Pine	150	6
Engelmann Spruce- Subalpine fir	150	6
Aspen	300	6
Forest Cover Type	Crown Closure (Percent)	Distri- bution 2/
Inland Ponderosa Pine	30	70%
Mixed Conifers	30	75%
Lodgepole		

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Silvicultural
Prescriptions
(E03, 06 & 07)

Pine	30	75%
Engelmann Spruce- Subalpine fir	30	75%
Aspen	30	75%

- 1/ Applies to trees specified as minimum stocking level.
2/ Percent of plots or transects that are stocked.

(6014) (09B)

Reforestation
(E04)

01 Plant trees of known genetic qualities to establish new stands.
(0275) (09B)

Water Resource
Improvement and
Maintenance
(F05 and 06)

01 Prolong streamflow, increase water yields and meet State water quality standards.
(0145) (09B)

a. Use snow fencing in montane meadows or alpine where snow deposition will occur in protected areas. Structures should be constructed with:

- 1) Ridge crest locations with at least 500 feet of upwind contributing area.
- 2) Perpendicular orientation to prevailing winds.
- 3) Northerly to northeasterly exposure of resultant snow drift.

(8426SJ) (09B)

02 See the "Silvicultural Prescriptions" management activity for specific vegetation treatment for increased water yield.

(3026SJ) (09B)

a. In areas not managed for timber production, treat clearcut areas in all forest cover types except aspen every 20 years to keep in equivalent clearcut condition.

(8430SJ) (09B)

MANAGEMENT PRESCRIPTION 09B

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Transportation
System
Management
(L01 & 20)

01 Manage local constant roads to accommodate medium-light seasonal use (SADT 10-50). Regulate seasonal public use by closure if roadbed damage will occur and where travel conflicts with livestock grazing.

(4727SJ) (09B)

02 Manage local intermittent roads to accommodate light use (SADT 0-20). Close to public use.

(4728SJ) (09B)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Construct roads to the minimum standards required for activities that accomplish the water yield objectives.

(4751SJ) (09B)

a. Manage the area for a moderate density (one-half to one mile/square mile) of constant roads.

(9333SJ) (09B)

a. Construct or reconstruct local constant roads with gravel support needed for timber operations and hauling.

(9332SJ) (09B)

b. Construct local intermittent roads with no gravel support unless needed to extend logging seasons.

(9328SJ) (09B)

Road
Maintenance
(L19)

01 Maintain roads as necessary to accomplish water yield objectives.

(4794SJ) (09B)

a. Maintain local constant roads to maintenance level three.

(9329SJ) (09B)

b. Maintain local intermittent roads to maintenance level two when open for project activities.

(9330SJ) (09B)

III-274

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Trail
System
Management
(L23)

01 Provide trails for cross-country skiing, snowmobile,
foot, and horse travel.

(47326J) (09B)

a. Maintain trails to maintenance
level two.

(93316J) (09B)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is
cost efficient and that will meet management objectives
within the vegetation cover types.

(50266J) (09B)

a. Wildfire protection levels:

Promptly control wildfires burning
at all Fire Intensity Levels ex-
cept in areas managed for permanent
openings.

(96296J) (09B)

III-275

MANAGEMENT PRESCRIPTION 09B

PREScription FOR MANAGEMENT AREA 10A
(Provides for research natural areas.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Emphasis is on research, study, observations, monitoring, and educational activities that are non-destructive and non-manipulative, and that maintain unmodified conditions.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	01 Manage for natural succession in all cover types. (0036SJ) (10A)	
Cultural Resource Management (A02)	01 Allow use of the area for research and educational purposes. a) Ensure that research conducted on archaeological properties is compatible with the intent of Research Natural Area designation. Non-destructive research techniques will be preferred. Research can only be conducted by, or under the direct supervision of, professional level archaeologists or related academic disciplines, and such research will only be completed under a Forest Service and State Historic Preservation Office approved research plan/design. b) Use data salvage type mitigation only as a last alternative to preserve resources that cannot in any feasible way be protected in their field situations, due to uncontrollable natural or human factors. c) Allow and promote the use of suitable archaeological properties for public education purposes, as long as such use does not degrade designation quality. d) Prohibit uses of archaeological properties other than for research or public education. (0552SJ) (10A)	
Visual Resource Management (A04)	01 Meet stated visual quality objective. (0125) (10A)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of retention. (6215) (10A)
Recreation Site Construction and Rehabilitation (A05 AND 06)	01 Prohibit construction of developed recreation sites. (0368) (10A)	

MANAGEMENT PRESCRIPTION 10A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Dispersed
Recreation
Management
(A14 and 15)

01 Discourage or prohibit any public use which
contributes to impairment of research or
educational values.
(0369) (10A)

a. Reference FSM 4063.36.
(6291) (10A)

02 Semi-primitive non-motorized opportunities will be
available.

(0553SJ) (10A)

03 Permit and encourage use by scientists and
educators.
(0370) (10A)

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

01 Prohibit any direct habitat manipulation.
(0371) (10A)

Range Resource
Management
(D02)

01 Restrict grazing by livestock to that essential
for the maintenance of a specific vegetation type.
(0372) (10A)

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Do not develop livestock distribution and control struc-
tures except boundary fences when there is grazing in
adjacent areas.
(2045SJ) (10A)

Silvicultural
Examination
and
Prescription

01 Prohibit any logging activity.
(0373) (10A)

Water Resource
Improvement and
Maintenance
(F05 and 06)

01 Limit the construction of water developments to the
minimal research facilities needed to measure quality,
quantity, and other hydrological characteristics.
(3027SJ) (10A)

MANAGEMENT PRESCRIPTION 10A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Special Use Management (Non -Recreation) (J01)	01 Use special use permits or cooperative agreements to authorize and document scientific activity. (0374) (10A)	a. Reference FSM 4063.37. (6217) (10A)
Withdrawals, Modifications and Revocations (J04)	01 Withdraw from mineral entry in conformance with Section 204 of Federal Land Policy and Management Act of 1976 (PL 94-579). (0375) (10A)	
Property Boundary Location (J06)	01 Monument all corners or turning points and document and record the monumentation in the establishment report. Mark boundaries in the field when appropriate to ensure integrity of the area. (0376) (10A)	
Transportation System Management (L01 & 20)	01 Generally, physical improvements, such as roads are not permitted. (0377) (10A)	
	02 Prohibit motorized vehicle use off Forest System Roads and Trails. (4766SJ) (10A)	
Trail System Management (L23)	01 Limit trails to those needed for access to conduct research and for educational purposes. (0378) (10A)	
Fire Planning and Suppression (P01)	01 Extinguish wildfires endangering the RNA. Allow fires within the RNA to burn undisturbed unless they threaten persons or property outside the area, or the uniqueness of the RNA. (0379) (10A)	a. Leave fire-caused debris for natural decay. (6218) (10A) b. Control wildfires occurring within the Narraguinne RNA as doc- umented in the Reclassification Report, May 15, 1962. (9635SJ) (10A)
Fuel Treatment (P11 thru 14)	01 Do not reduce fire hazard within the RNA. (0380) (10A)	

MANAGEMENT PRESCRIPTION 10A

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Law Enforcement
(P24 thru 27)

01 Use special closures when necessary to protect
the RNA from actual or potential damage from public
use.
(0381) (10A)

a. Issue closure order under
provisions of 36 GRF 261.50
(FSM 4063.3).
(6219) (10A)

Protection
(P40)

01 Take no action against endemic insects, diseases
or wild animals.
(0382) (10A)

III-280

PRESCRIPTION FOR MANAGEMENT AREA 10C

(Provides for special interest areas.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Emphasis is on management of areas of unusual scenic, historical, geological, botanical, zoological, paleontological, or other special characteristics to protect and where appropriate, foster public use and enjoyment of these areas.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	<p>01 Manage for natural succession unless specific vegetation treatment is necessary for public safety, to meet recreation and visual objectives or for insect and disease control.</p> <p>(00375J) (10C)</p>	
Cultural Resource Management (A02)	<p>01 Manage cultural resources for protection, preservation, investigation, and a relatively high degree of public use.</p> <p>a) Maintain the reconstructed ruins to present standards; new sites will be excavated and reconstructed as necessary to facilitate interpretive plans and increase in public use.</p> <p>b) Allow supervised public visitation to occur on a regular scheduled basis; however, close the Chimney Rock cuesta (1350 acres) to unsupervised public entry to protect the cultural resources.</p> <p>c) Provide an observation tower and appropriate Visitor Information Service programs for interpretation of the unique archaeological resources. The public information program could include, but is not limited to, programs on the cultural importance of the area as well as efforts to further the survival of the peregrine falcon.</p> <p>d) Issue antiquities permits compatible with area objectives to qualified academic institutions, individuals, and other organizations for study and research.</p> <p>e) Curate and display significant artifacts found in the area either on site or at other suitable facilities.</p> <p>f) Inform the public about the cultural resources found in the area.</p> <p>(05625J) (10C)</p>	
Visual Resource Management (A04)	<p>01 Meet stated visual quality objective.</p> <p>(0125) (10C)</p>	<p>a. Do not exceed an Adopted Visual Quality Objective (VQO) of retention.</p> <p>(6215) (10C)</p>

MANAGEMENT PRESCRIPTION 10C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Recreation Site
Construction and
Rehabilitation
(A05 AND 06)

01 Construct public convenience facilities, including, but not limited to, restrooms in the observation area, an observation tower, self-guided interpretive trails, and an environmental education-interpretive area.

(0563SJ) (10C)

Dispersed
Recreation
Management
(A14 and 15)

01 Make the area available for day use activities such as viewing the ruins, observing wildlife, hunting, and hiking.

(0565SJ) (10C)

Recreation
Management
(Private and
Other Public
Sector)
(A16)

01 Permit only special land uses directly serving public visitation and interpretation of the ruins.

(0561SJ) (10C)

Wildlife and
Fish Resource
Management
(G01)

01 Maintain the peregrine falcon and improve its habitat at the Chimney Rock site as outlined in Memorandum of Understanding #130051.

(1546SJ) (10C)

02 Limit public visitation during periods when peregrine falcons are nesting and rearing.

(1551SJ) (10C)

03 Undertake population reduction programs for any species of wildlife that increases in number to a point of being detrimental to the peregrine falcon habitat.

(1548SJ) (10C)

Wildlife
Habitat
Improvement and
Maintenance
(G02, 04, 05
and 06)

Q1 Undertake projects to improve or modify wildlife habitat if such projects do not conflict with peregrine falcon habitat management.

(1552SJ) (10C)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range Resource Management (D02)	01 Permit no livestock grazing except the use and grazing of recreation horses. (2050SJ) (10C)
Silvicultural Prescriptions (E03, 06 & 07)	01 Allow tree removal only for such purposes as public safety, improvement of aesthetics, insect and disease control, ruins research and maintenance, ruins reconstruction, or wildlife habitat improvement. (2547SJ) (10C)
Mining Law Compliance and Administration (G01)	01 Maintain current withdrawal from mineral entry on the 1,350 acres centered on the Chimney Rock cuesta (withdrawn 4/30/70 under authority of E.O. 10355). Pursue withdrawal of the remaining 1,810 acres of the designated Chimney Rock Archaeological Area. In the event that withdrawal is not made, supervise activities of claimants to insure minimum impact on cultural and wildlife resources. (3530SJ) (10C)
Special Use Management (Non-Recreation) (J01)	01 Permit only special land uses directly serving public visitation and interpretation of the ruins. (0561SJ) (10C)
Rights-of-way and Land Adjustments (J02, 13, 15, 16, 17, and 18)	01 Actively pursue acquisition of adjacent or nearby lands essential for protection of significant archaeological values and for an interpretive program that provides a well-rounded understanding of the Chimney Rock occupation. (4244SJ) (10C)
Property Boundary Location (J06)	01 Survey, mark and post the boundary of the Chimney Rock Archaeological Area. (4243SJ) (10C)
Transportation System Management (L01 & 20)	01 Develop transportation system only to enhance cultural resource interpretive or maintenance opportunities. (4781SJ) (10C)

MANAGEMENT PRESCRIPTION 10C

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Transportation
System
Management
(L01 & 20)

02 Close the Chimney Rock Archaeological Area to all motorized vehicles except those used for maintenance, emergencies, administration, and guided tours, or those authorized by the San Juan National Forest Supervisor.

(4782SJ) (10G)

Local Road
Construction and
Reconstruction
(L11, 12, & 13)

01 Construct no new roads.

(4783SJ) (10G)

Trail
System
Management
(L23)

01 Construct short interpretive trails.

(4785SJ) (10G)

02 Construct a loop horse and foot trail to allow for public trail use between the main gate and the parking lot.

(4786SJ) (10G)

Fire Planning
and
Suppression
(P01)

01 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives.

(5032SJ) (10G)

a. Wildfire protection levels:

Promptly control wildfires burning at all Fire Intensity Levels except in areas managed for permanent openings.

(9629SJ) (10G)

02 Use bulldozers in fire suppression only if necessary to protect known ruins, peregrine falcon habitat, or when justified by predicted loss of resource values outside the area.

(5034SJ) (10G)

Fuel Treatment
(P11 thru 14)

01 Maintain fuel conditions which permit fire suppression forces to meet fire protection objectives for the area.

(0113) (10G)

MANAGEMENT PRESCRIPTION 10G

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

CONTINUATION OF:
Fuel Treatment
(P11 thru 14)

02 Prescribe burn for hazard reduction when archaeological,
wildlife and recreational resources are not endangered.

(5035SJ) (10G)

Law Enforcement
(P24 thru 27)

01 Closely monitor ruins for deterioration and law viola-
tions. Increase law enforcement patrols during periods of
public access.

(5036SJ) (10G)

III-286

PRESCRIPTION FOR MANAGEMENT AREA 10D

(Provides for Wild and Scenic Rivers.)

MANAGEMENT PRESCRIPTION SUMMARY

General Description and Goals:

Management emphasis is on river segments designated as a component of the National Wild and Scenic River System and those recommended for designation. "Wild Rivers" are managed to be free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and water unpolluted. "Scenic Rivers" are managed to be free of impoundments with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads. "Recreational Rivers" are managed to be readily accessible by road or railroad, and to maintain developments that may have occurred along the shoreline and impoundments or diversions that may have occurred in the past.

B. MANAGEMENT REQUIREMENTS

MANAGEMENT ACTIVITIES	GENERAL DIRECTION	STANDARDS & GUIDELINES
Diversity on National Forests and National Grasslands (A00)	O1 Manage for natural succession in wild and scenic segments. Provide diversity in recreational river segments through harvest treatments specified under management activity "Silvicultural Prescriptions." (10375J) (10D)	
Cultural Resource Management (A02)	O1 Allow low-intensity development of cultural resource properties as compatible with river designation; for example, interpretive and protective signing and stabilization of historic structures. Encourage non-recreation use (research, etc.) to the extent that such use enhances the recreation experience or does not present unsolvable conflicts with designation purposes. (0555SJ) (10D)	
Visual Resource Management (A04)	O1 Meet stated visual quality objective. (0125) (10D)	a. Do not exceed an Adopted Visual Quality Objective (VQO) of: - Retention on wild and scenic segments - Partial retention on recreational segments. (6431SJ) (10D)
Dispersed Recreation Management (A14 and 15)	O1 Provide the following recreation opportunities in the respective river segments: - Wild river segments: Semi-primitive non-motorized recreation in an unmodified setting. - Scenic river segments: Semi-primitive motorized recreation in an essentially unmodified setting. - Recreational river segments: Roaded natural recreation in a generally unmodified setting. (0556SJ) (10D)	

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Recreation Site
Construction and
Rehabilitation
(A05 AND 06)

01 Provide facilities to meet the overall objective of the various segments.

- a) Wild river segments: Provide rustic or rudimentary facilities when needed to protect existing camping sites; otherwise, allow no new campgrounds, picnic areas, and trailheads in river corridors.
- b) Scenic river segments: Provide rustic or rudimentary facilities at existing camping sites, or develop new sites when needed for protection of the site rather than for the comfort of the user. Such sites must be screened from view. Sites may also be provided for boaters on boatable segments which are otherwise inaccessible by trail.
- c) Recreational river segments: Provide contemporary/rustic facilities at new sites such as campgrounds, picnic areas, trailheads, parking and boat launching areas for the comfort of users as well as for site protection. Such sites may also be provided for boaters on boatable segments which are otherwise inaccessible by trail.

(0557SJ) (10D)

Wildlife
Habitat
Improvement and
Maintenance
(002, 04, 05
and 06)

01 Permit investments in wildlife habitat projects that do not cause adverse impact to the scenic qualities of the river corridor.

(1545SJ) (10D)

Range Resource
Management
(D02)

01 Allow domestic livestock to graze within corridors, but decrease grazing where adverse impacts on river banks and vegetation occur. Exclude cattle from sensitive sites and reduce numbers or period of use in areas where grazing degradation has occurred.

(2046SJ) (10D)

02 Prohibit trailing (driving) of livestock within the river corridor except for established stock driveways.

(2047SJ) (10D)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Range
Improvement and
Maintenance
(D03, 04, 05
and 06)

01 Limit investments of range cultural practices to broad-
cast seeding of native forage species and noxious weed con-
trol.

(2048SJ) (10D)

02 Limit investments in structural improvements to those
needed for proper distribution and river area protection.
Control bank trampling.

(2049SJ) (10D)

Silvicultural
Prescriptions
(E03, 06 & 07)

01 Timber will be available on a low yield basis, although
sustained non-declining timber yield is not planned. Har-
vest timber only to maintain healthy stands and to enhance
visual, wildlife, and other values of the corridor.

(2545SJ) (10D)

02 Manage forest cover types using the following harvest
methods:

- Clearcut in aspen.

- Selection in conifer cover types.

(2546SJ) (10D)

a. Silvicultural Standards:

1) Aspen: Patch clearcut in units o
one to three acres.

2) Conifer cover types:
Remove no more than 30 percent
of the basal area in any one
cutting period (30) years with
selection harvest methods.

(8061SJ) (10D)

Rights-of-way
and Land
Adjustments
(J02, 13, 15,
16, 17, and 18)

01 Do not dispose of National Forest lands within corridor.
All private land within the established river corridor
boundary is subject to the scenic easement or acquisition
program.

(4241SJ) (10D)

MANAGEMENT
ACTIVITIES

GENERAL
DIRECTION

STANDARDS &
GUIDELINES

Transportation
System
Management
(LO1 & 20)

O1 Manage motorized vehicle use on the respective segments as follows:

- Wild river segments: Prohibit motorized vehicle use (including snowmobiles) off Forest System roads and trails. Close existing trails to motorized vehicle use.

- Scenic and Recreational river segments: Prohibit motorized travel off development roads and trails except for oversnow vehicle use.

(4779SJ) (10D)

Fire Planning
and
Suppression
(PO1)

O1 Provide a level of protection from wildfire that is cost efficient and that will meet management objectives.

(5032SJ) (10D)

a. Wildfire protection levels:

1) Inland ponderosa pine; pinon pine-juniper; Gambel oak; aspen; grasslands:

a) Confine or contain wildfires burning at Fire Intensity Levels (FIL's) I and II.

b) Promptly control wildfires burning at FIL's III and higher.

2) Mixed browse; mixed conifers; Engelmann spruce-sitka spruce fir:

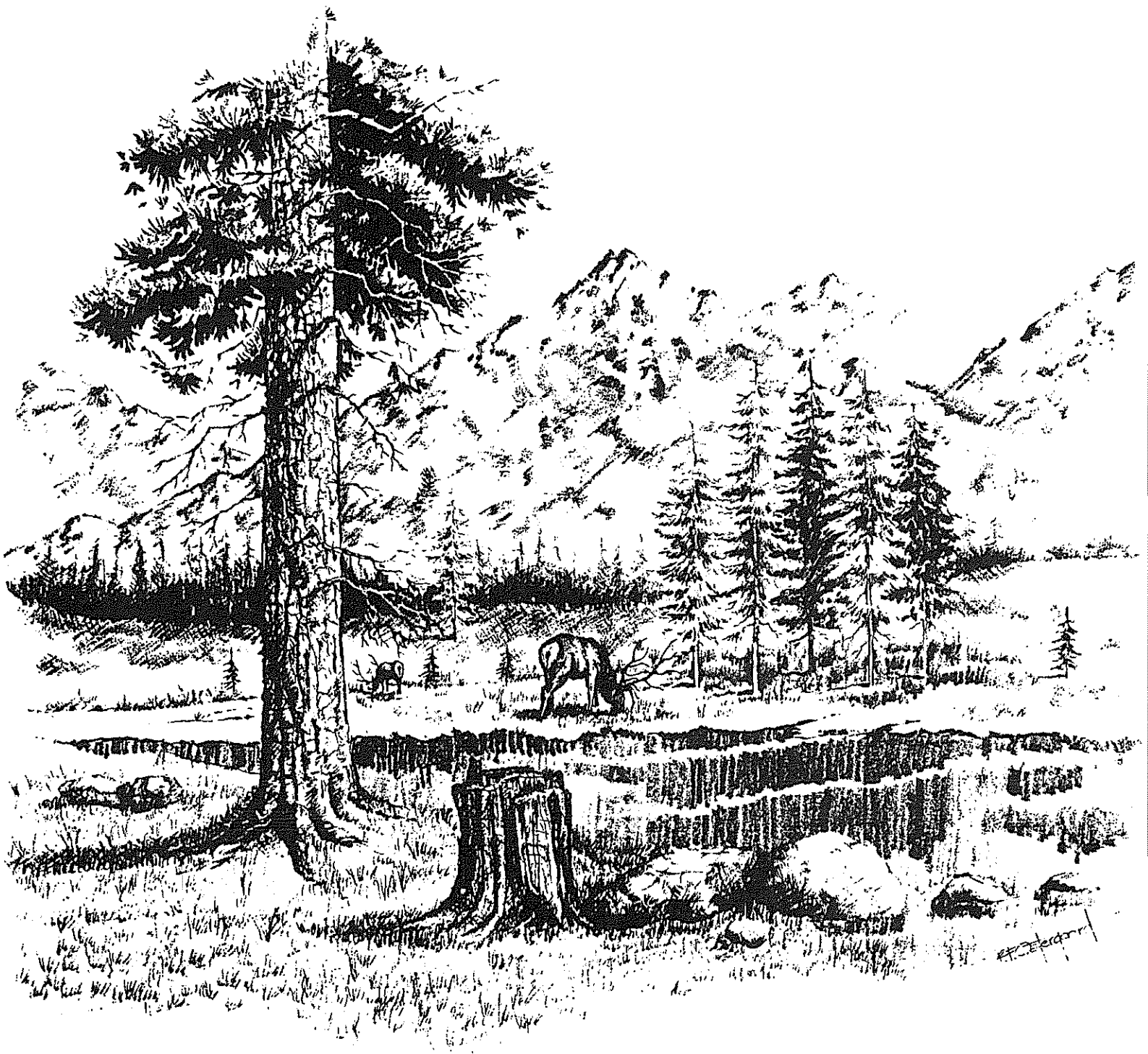
a) Promptly control wildfires burning at all FIL's.

(9636SJ) (10D)

b. Do not allow tractor use for fire suppression within river corridors.

(9637SJ) (10D)

III-291



iv. monitoring and evaluation

CHAPTER IV

MONITORING AND EVALUATION

Monitoring and evaluating the implementation of the Forest Plan provides the decisionmaker with information on the progress toward achieving the goals, objectives, and management requirements of the Forest Plan.

Monitoring will determine:

- if management area prescriptions are applied as directed.
- if management requirements are being followed.
- if the Forest Service is achieving the objectives of the Plan.
- if application of management area prescriptions are responding to public issues and management concerns.
- if effects of implementing the Forest Plan are occurring as predicted.
- if costs of implementing the Forest Plan are as predicted.
- if management practices on adjacent or intermingled non-National Forest lands are affecting the Forest Plan goals and objectives.
- the effects of implementation of the Forest Plan on other agencies.

An annual monitoring action program will be prepared as part of the total San Juan National Forest annual program of work. This annual monitoring program will include the details of the amount and location of monitoring to be accomplished based on the approved program of work and funds available for monitoring. Specific locations, intensity of sampling, person days required, and costs will be identified in the annual monitoring program.

Evaluation of results of the site-specific monitoring program will be documented in an annual review. The significance of the results of the monitoring program will be analyzed by the San Juan National Forest interdisciplinary team and reviewed for action by the management team.

Based on the analysis, any need for further action is recommended to the Forest Supervisor by the management team. The recommendations can include:

- no action needed, monitoring indicates goals, objectives, and management requirements are achieved;
- refer recommended action to the appropriate line officer for improvement of application of management area prescriptions;
- modify the management area prescription as a Forest Plan amendment;

- modify the allocation of a management area prescription as a Forest Plan amendment;
- revise the projected schedule of outputs; or
- initiate revision of the Forest Plan.

The documented file of the Forest Supervisor's decisions resulting from monitoring and review is maintained for future use in amending or revising the Forest Plan.

The Forest Plan's monitoring requirements appear in Table IV-1. For each activity, practice, or effect to be monitored, one or more measurement techniques and the standard to be met are specified. A frequency for measuring the monitored item is also established.

TABLE IV-1

Monitoring Requirements

Actions, Effects or Resources to be Monitored	Units	Data Source	Intent	Frequency	Precision/Reliability	Variability which would initiate Evaluation
Significant changes in land productivity and any problems, needed changes or lack of performance in the application of all prescriptions		-Letters -Program review -Public input -Activity reviews -Environmental Assessments -Staff activities	Judge the effects of applying the standards and guidelines from the Forest Plan	At least once every five years	Varies	When there are strong indications of land productivity deterioration
Actual costs of applying Management Direction from the Forest Plan -Operation and Maintenance (undiscounted) -Capital investment -General Administration -Backlog -Total budget	Dollars	Program Accounting and Management Attainment Reporting System (PAMARS)	Compare actual and planned costs	Annually	Varies	Whenever costs increase at least twice as fast as the rate of inflation
RECREATION						
Developed recreation use (includes VIS)	Recreation Visitor Days	Management Attainment Report (MAR) or Recreation Information Management (RIM)	Compare actual and planned outputs and services	Annually	85 percent	After five years ± 100 percent
Dispersed recreation use (includes wilderness and fish)	Recreation Visitor Days	MAR or RIM	Compare actual and planned outputs and services	Annually	60 percent	After five years ± 100 percent
Trail construction/reconstruction	Miles	MAR	Compare actual and planned outputs and services	Annually	100 percent	± 100 percent
WILDERNESS						
Wilderness management	Acres	MAR	Compare actual and planned outputs and services	Annually	100 percent	Any change
WILDLIFE AND FISH						
Wildlife habitat improvement	Acres	MAR	Compare actual and planned outputs and services	Annually	100 percent	± 50 percent

TABLE IV-1 (Continued)

Monitoring Requirements

Actions, Effects or Resources to be Monitored	Units	Data Source	Intent	Frequency	Precision/ Reliability	Variability which would initiate Evaluation
<u>WILDLIFE AND FISH (Continued)</u>						
Population and habitat trends of management indicator species		-Population estimates by State Wildlife agencies -Professional judgment of FS Wildlife Biologist -Habitat inventory assessments -Resource Information System -Program reviews -Activity reviews -Annual wildlife and fish report -Diversity assessments	Determine habitat capability trends and the relationship to habitat change	At least once every five years	Varies	-Species viability is jeopardized -20 percent change in species habitat distribution -Change in species emphasis by State Fish and Wildlife Agency
<u>RANGE</u> Grazing use (livestock)	Animal Unit Months	MAR	Compare actual and planned out- puts and services	Annually	95 percent	±25 percent
<u>TIMBER</u> Programmed sales offered	Million Board Feet	MAR	Compare actual and planned out- puts and services	Annually	100 percent	±25 percent
Reforestation	Acres	MAR	Compare actual and planned out- puts and services	Annually	100 percent	±25 percent
Timber stand improvement	Acres	MAR	Compare actual and planned out- puts and services	Annually	80 percent	±25 percent
Document restocking of lands specified in the Forest Plan		-Survival checks -Forest Supervisor certification	Determine if lands are adequately re- stocked	Annually	80 percent	

TABLE IV-1 (Continued)

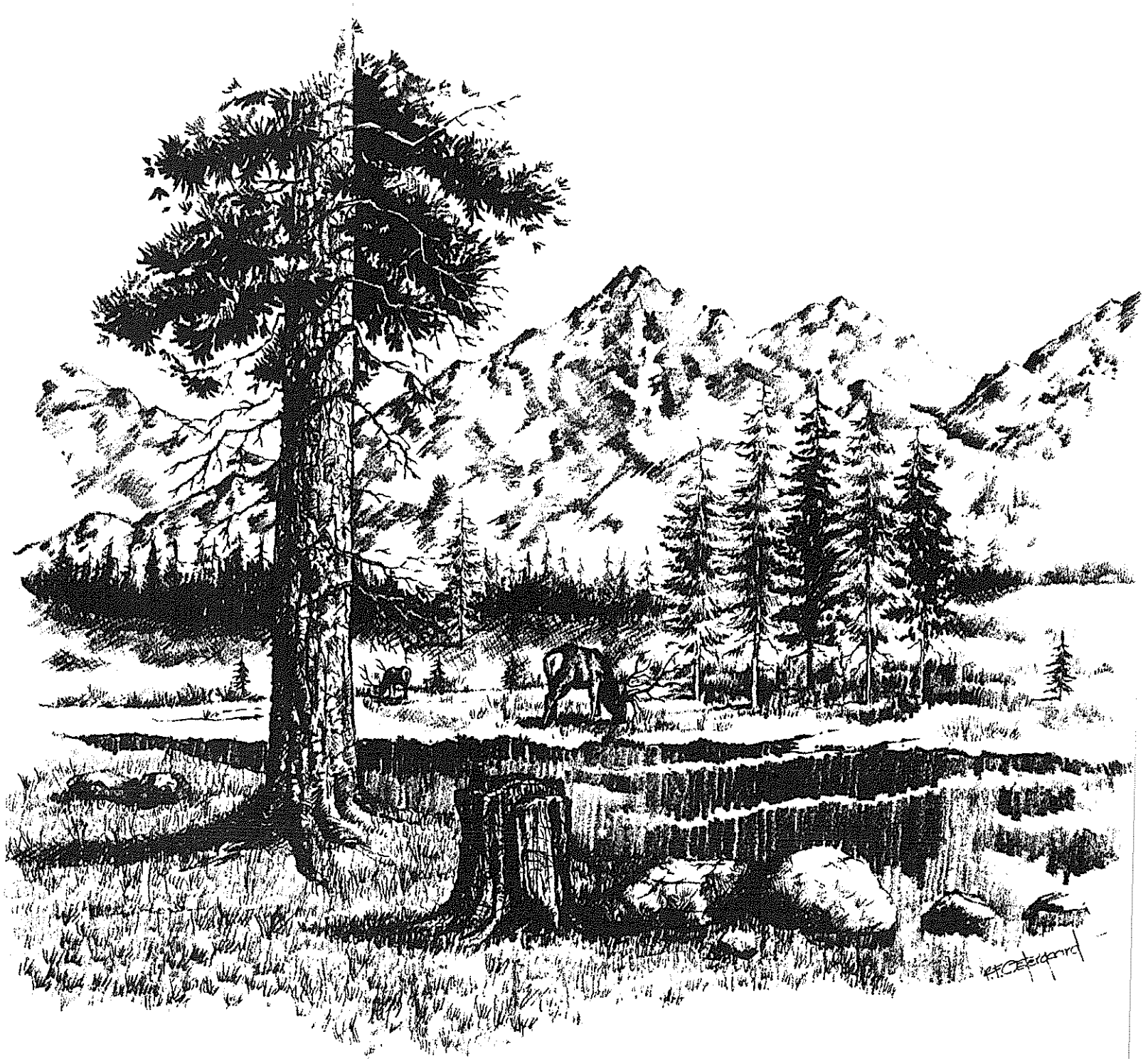
Monitoring Requirements

Actions, Effects or Resources to be Monitored	Units	Data Source	Intent	Frequency	Precision/ Reliability	Variability which would initiate Evaluation
<u>TIMBER (Continued)</u>						
Lands not suitable for timber production		-Stage II inven- tory -Suitability analysis and documentation listed in the Forest Plan	Determine if lands identified as not suitable for timber production have become suitable	10-year cycle	80 percent	
Size limits for timber harvest areas		-Environmental Assessments -Program review -Activity review	Determine if size limits for harvest areas should be continued	At least once every five years	80 percent	
Levels of insects and disease organisms		-Insect and disease surveys -Stage II Inventory	Determine if insect and disease organ- isms are increased to potentially damaging levels following management activities	At least once every three years	80 percent	When survey indicates an outbreak could be- come epidemic
<u>WATER</u>						
Meeting water quality goals	Acre-Feet	MAR	Compare actual and planned out- puts and services	Annually	90 percent	±25 percent
<u>MINERALS</u>						
Minerals leases and permits	Operating plans	MAR	Compare actual and planned out- puts and services	Annually	100 percent	±100 percent
<u>HUMAN AND COMMUNITY DEVELOPMENT</u>						
Human Resources Program	Enrollee years	MAR	Compare actual and planned out- puts and services	Annually	95 percent	±100 percent
<u>LANDS</u>						
Land purchase and acquisition (excluding exchange)	Acres	MAR	Compare actual and planned out- puts and services	Annually	100 percent	±100 percent

TABLE IV-1 (Continued)

Monitoring Requirements

Actions, Effects or Resources to be Monitored	Units	Data Source	Intent	Frequency	Precision/ Reliability	Variability which would initiate Evaluation
<u>SOILS</u>						
Soil and water improve- ments (improved watershed condition)	Acres	MAR	Compare actual and planned out- puts and services	Annually	80 percent	±50 percent
<u>FACILITIES</u>						
Road construction/ reconstruction (arter- ial, collector)	Miles	MAR	Compare actual and planned out- puts and services	Annually	100 percent	±100 percent
<u>PROTECTION</u>						
Fire management effective- ness index	Dollars/ Thousand Acres	MAR	Compare actual and planned out- puts and services	Annually	80 percent	±50 percent
Fuel breaks and fuel treatment	Acres	MAR	Compare actual and planned out- puts and services	Annually	80 percent	±25 percent
<u>ECONOMICS</u>						
Returns to the Treasury	Dollars	PAMARS	Compare actual and planned out- puts and services	Annually	100 percent	±100 percent



v. index

CHAPTER V

INDEX

	<u>Page</u>
Air Quality -----	Ch. II: 33; III: 6
Budget (see also Economics) -----	Ch. III: 1, 2
Burning, see Fire	
Campground(s), see Recreation, Developed	
Chimney Rock Archaeological Area (see also Historic and Cultural Resources) -----	Ch. II: 13, 14, 29
Colorado Wilderness Act of 1980 -----	Ch. II: 16
Concerns, Management -----	Ch. III: 1
Counties,	
Archuleta -----	Ch. I: 2-4; II: 2, 7, 8, 33
Conejos -----	Ch. I: 2-4; II: 3
Dolores -----	Ch. I: 2-4; II: 2, 3, 4, 33
Hinsdale -----	Ch. I: 2-4; II: 3, 7
La Plata -----	Ch. I: 2-4; II: 2, 4, 6, 33
Mineral -----	Ch. I: 2, 3; II: 3, 7
Montezuma -----	Ch. I: 2-4; II: 2, 4, 33
Rio Grande -----	Ch. I: 2-4; II: 3
San Juan -----	Ch. I: 2-4; II: 2, 6, 33
San Miguel -----	Ch. I: 2-4; II: 3, 4
Cultural Resources, see Historic and Cultural Resources (see also Chimney Rock Archaeological Area)	
Disease, see Integrated Pest Management	
Durango and Silverton Narrow Gauge Railroad -----	Ch. II: 14
Economics (see also Budget) -----	Ch. II: 2, 3
Employment -----	Ch. II: 3, 6, 7
Facilities,	
Structures and Administrative Sites -----	Ch. II: 30
Transportation (see also Recreation, Dispersed),	
Roads -----	Ch. II: 31, 36, 39; III: 5; App. C: 1, 2, G: 2
Trails -----	Ch. II: 31, 32, 36, 39; III: 5; App. D: 1-5; G: 2
Federal Energy Regulatory Commission -----	Ch. II: 26-27

Fire,	
Management -----	App. I: 1-5
Prescribed -----	Ch. II: 46
Protection -----	Ch. II: 32, 36, 46; III: 6
Fish,	
General -----	Ch. II: 16, 17, 35, 45
Habitat -----	Ch. II: 16-19
Species -----	Ch. II: 16, 17
Forest and Rangeland Renewable Resources Planning Act of 1974 -----	Ch. II: 8
Forest Direction -----	Ch. III: 1-84
Geology, see Minerals and Soil(s)	
Goals -----	Ch. III: 3-6
Grazing, see Range	
Historic and Cultural Resources -----	Ch. II: 14; III: 3-4
Human and Community Development -----	Ch. II: 24; III: 6
Human Resource Unit(s),	
Animas -----	Ch. II: 5-7, 44
Montelores -----	Ch. II: 4-6, 44
Pagosa -----	Ch. 5, 7, 8, 44
HRU, see Human Resource Unit(s)	
Implementation -----	Ch. III: 1, 2; App. A: 1-4
Insects, see Integrated Pest Management	
Integrated Pest Management -----	Ch. II: 32, 33, 36, 46; III: 6
Issues, Public -----	Ch. III: 1
Lands,	
Adjustments -----	Ch. II: 43; III: 5
Licenses and Permits -----	Ch. II: 27
Ownership -----	Ch. II: 25, 26
Rights-of-Way -----	Ch. II: 25; III: 5
Special Uses -----	Ch. II: 25, 43
Utility and Communication Facilities -----	Ch. II: 27, 28
Withdrawals -----	Ch. II: 26-27
Livestock, see Range	
Management Area Direction (see also Prescriptions for Manage- ment Areas) -----	Ch. III: 1, 2, 10, 85-87
Management Requirements, see Forest Direction and Management Area Direction	
McPhee Reservoir -----	Ch. II: 6
Mesa Verde National Park -----	Ch. II: 13
Minerals,	
General -----	Ch. II: 22-24, 42; III: 5
Leasable -----	Ch. II: 23, 24
Leasing -----	App. H: 1-14

Minerals, (Continued)

Locatable -----	Ch. II: 23
Salable -----	Ch. II: 24
Withdrawals -----	App. E: 1-8
Monitoring and Evaluation -----	Ch. IV: 1-6

Narraguinnep, see Research
Natural Area

National Wilderness Preser- vation System -----	Ch. II: 16
--	------------

Pest Management, see Integrated
Pest Management

Planning Questions -----	Ch. II: 37-43
--------------------------	---------------

Prescriptions for Management Areas,

General -----	Ch. III: 2, 3, 85-87
1A -----	Ch. III: 88-92
1B -----	Ch. III: 93-100
1D -----	Ch. III: 101-104
2A -----	Ch. III: 105-117
2B -----	Ch. III: 118-129
3A -----	Ch. III: 130-139
4B -----	Ch. III: 140-158
5B -----	Ch. III: 159-178
6B -----	Ch. III: 179-193
7C -----	Ch. III: 194-208
7E -----	Ch. III: 209-224
8A -----	Ch. III: 225-228
8B -----	Ch. III: 229-235
8C -----	Ch. III: 236-242
8D -----	Ch. III: 243-249
9A -----	Ch. III: 250-264
9B -----	Ch. III: 265-275
10A -----	Ch. III: 276-280
10C -----	Ch. III: 281-286
10D -----	Ch. III: 287-291

RARE II, see Roadless Area Review
and Evaluation

RPA, see Forest and Rangeland
Renewable Resources Planning
Act of 1974

Range -----	Ch. II: 19, 20, 35, 41; III: 4
-------------	--------------------------------

Recreation,

Developed (see also Campgrounds
and Picnic Area(s) and Ski

Area(s) -----	Ch. II: 13, 37, 38
---------------	--------------------

Dispersed (see also Facilities,
Transportation) -----

-----	Ch. II: 12, 37
-------	----------------

General -----	Ch. II: 34, 35, 45; III: 3, 4
---------------	-------------------------------

Research Natural Area(s) -----	Ch. II: 28
--------------------------------	------------

Rivers, see Wild and Scenic Rivers

Roadless Area Review and Evaluation -----	Ch. II: 16
Roads, see Facilities, Transportation	
SRU, see Social Resource Unit(s)	
Skiing, Downhill -----	Ch. II: 6, 13, 38
Social Resource Unit(s) -----	Ch. II: 3, 4, 43, 44
Soil(s) (see also Minerals) -----	Ch. II: 29-30, 45-46; II: 5
Southern Ute Tribe -----	Ch. II: 4, 29
Spring Creek Archaeological District -----	Ch. II: 14
Threatened and Endangered Species, see Wildlife and Fish	
Timber,	
General -----	Ch. II: 20, 21, 35, 36, 39-40, 45; III: 4, 5
Harvest -----	Ch. II: 20, 21, 39-40; App. B: 1-20
Land Classification -----	App. F: 1-13
Reforestation -----	Ch. II: 21, App. B: 21-31
Regeneration -----	Ch. II: 21
Trails, see Facilities, Transportation	
Transportation, see Facilities	
Ute Mountain Ute Tribe -----	Ch. II: 4
Vegetation,	
Threatened and Endangered Species -----	Ch. II: 18
Treatment and Management -----	Ch. II: 19, 21, 22, 34; III: 3
Types -----	Ch. II: 2
Visual Resources -----	Ch. II: 14, 35; III: 3
Water -----	Ch. II: 21, 22, 36, 41, 45, 46; III: 5
Wild and Scenic Rivers -----	Ch. II: 28, 29
Wilderness(es),	
General -----	Ch. I: 2; II: 15, 16; III: 4
Lizard Head -----	Ch. II: 15
South San Juan -----	Ch. II: 15
Weminuche -----	Ch. II: 15
Wilderness Study Area(s),	
General -----	Ch. II: 16, 38, 39
Piedra -----	Ch. II: 16; III: 85
South San Juan Expansion -----	Ch. II: 16; III: 85
West Needle -----	Ch. II: 16; III: 85
Wildlife,	
Species -----	Ch. II: 2, 16, 17
General -----	Ch. II: 16, 17, 35, 45; III: 4
Habitat -----	Ch. II: 16-19, 40
Non-consumptive Use -----	Ch. II: 16, 17

Wildlife, (Continued)

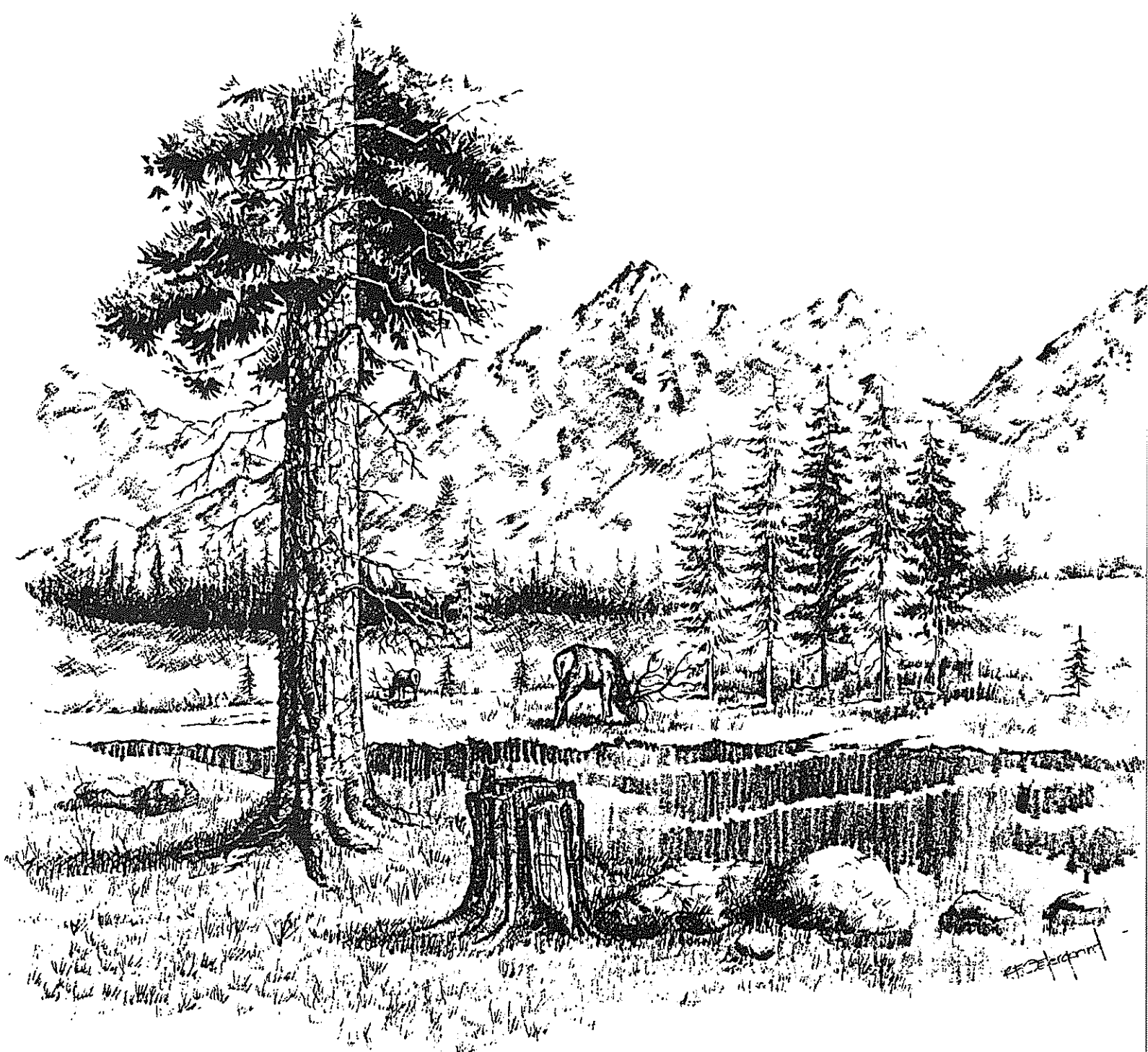
Threatened and Endangered

Species ----- Ch. II: 18, 19

Winter Range ----- Ch. II: 16, 17

Williams Creek, see Research

Natural Area(s)



appendices

APPENDIX A

PRIORITIES FOR IMPLEMENTATION
BY MANAGEMENT AREAS

PRIORITIES FOR IMPLEMENTATION BY MANAGEMENT AREAS

The purpose of this appendix is to clarify the general priorities for implementation of some selected management practices. Many of the management area prescriptions in the Management Direction section of Chapter III contain the same or similar management requirements. Because of budget limitations, it is important to set some general priorities for implementing practices within the respective management areas. The emphasis of each prescription gives some guidance for implementation; however, this is not explicit in many cases.

Table 1 lists priorities by management area for vegetation treatment in non-forest and non-commercial forest cover types. Table 2 includes priorities for implementing additional selected management activities.

TABLE 1

Priorities for Vegetation Treatment in Non-Forest and Non-Commercial Forest Cover Types

Cover Type	Objective	Management Area Priorities ^{1/}				
		Very High	High	Moderate	Low	Very Low
Gambel Oak	For Wildlife Purposes	4B ("E" portion), 5B	4B ("F" portion)	6B ("B" portion), 7C, 7E	2A ("G ₁ " portion)	All Others
	For Domestic Livestock Purposes	6B ("A" portion)	6B ("B" portion)	--	--	All Others
	For Visual Purposes	2B	--	--	--	All Others
Pinon Pine-Juniper and Mixed Browse	For Wildlife Purposes	4B ("E" portion), 5B	4B ("F" portion)	6B ("B" portion), 7C, 7E	--	All Others
	For Domestic Livestock Purposes	6B ("A" portion)	6B ("B" portion)	--	--	All Others
	For Visual Purposes	2B	--	--	--	All Others
Grassland	For Wildlife Purposes	4B ("E" portion), 5B	4B ("F" portion)	6B ("B" portion), 7C, 7E	--	All Others
	For Domestic Livestock Purposes	6B ("A" portion)	6B ("B" portion)	4B ("F" portion), 7C, 7E	4B ("E" portion), 5B	All Others
	For Visual Purposes	2B	--	--	--	All Others

^{1/} See the Alternative H alternative map in the back of the final EIS for designated portions included in parenthesis following management areas.

TABLE 2

Priorities for Implementing Management Practices by Management Areas

Management Activity		Management Area Priorities ^{1/}				Very Low
		Very High	High	Moderate	Low	
Cultural Resource Interpretation	10C	2A ("G" portion), 3A ("H" portion)	--	All Others	2A ("R" portion) 3A ("R" portion)	
Structural Wildlife Habitat Improvements	4B	2A ("G" portions), 3A ("H" portion), 10D	7C, 7E	6B ("B" portions), 9B	All Others	
Non-structural Range Improvements						
High Investments (Mechanical practices such as root plowing, discing, drill seeding, etc.)	6B ("A ₁ " portion)	6B ("B" portion)	--	--	All Others	
Low to moderate Investments (Prescribed burning, etc.)	6B ("A" portions)	6B ("B" portion)	--	7C, 7E	All Others	
Intensive Grazing Systems	6B, 9A	--	4B ("F" portions), 7E, 7C	4B ("E" portion)	All Others	
Supplement Natural Regeneration to Compensate for Livestock Damage	6B	4B ("F ₂ " portion)	--	--	All Others	

^{1/} See the Alternative H alternative map in the back of the final EIS for designated portions included in parenthesis following management areas.

APPENDIX B

TEN-YEAR TIMBER SALE AND
REFORESTATION SUMMARIES

Ten-Year Timber Sale Summary

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas <u>1/</u> -Twp., Rge., Sec.	Timber Type <u>3/</u>	Net Acres Cut by Harvest System <u>2/</u>						Logging Method <u>4/</u>	Volume MMBF by Type	Road Miles <u>5/</u>	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
81	Can Bear It	Animas	7E, 33D0, H21G0-414 7C, 33D0, H32G0-419 T38N,R8W, Sec. 25,35,36	SF	146						T	1.40	0.4	3.3
81	Lift #6	Animas	2A, 35H1, H52G0-401 1B, 35H2, H21G0-405 T39N, R9W, Sec. 21,22,27,28	SF		90					T	1.55	--	--
81	Butler	Animas	2A, 33B0, H22G0-410 6B, 33B0, H22G0-408 T38N, R9W, Sec. 3,4 T39N, R9W, Sec. 26,27,33-35	SF			1201				T	4.20	4.3	10.0
81	Small Sales	Animas	Various	SF			27				T	.54	--	--
81	Lone Cone	Dolores	4B, 49C0, S21G0-000 4B, 49C0, I31G0-000 4B, 40C0, I32GX-000 T41N, R12W, Sec. 6,7,18	SF,A		39	1406		50		T	SF 5.75 A 0.43	11.1	3.8
81	Boggy Draw Aspen	Dolores	7E, 51D0, H21D0-037 T38N, R14W, Sec. 3,10,15-17	A		39					T	.63	--	--
81	Roaring Fork #24	Dolores	2A, 47H1, H21G0-026 T39N, R10W, Sec. 30,31	SF	80						T	.75	--	--
81	Small Sales	Dolores	Various	SF	800						T	1.46	--	--
81	Chicken Creek	Mancos	7E, 41A0, H21D0-205 T37N, R13W, Sec. 22-27,33-34	PP	2684						T	3.50	4.4	5.1
81	Small Sales	Mancos	Various	A		245					T	2.10	--	--

1/ The Management Area is indicated by a letter and number (example: 7C). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

2/ IC - Intermediate Cut, CC - Clearcut, SW-P - Shelterwood Prep, SW-S - Shelterwood Seed, SW-R - Shelterwood Removal, SEL - Selection Management

3/ SF - Spruce fir, MC - Mixed conifer, PP - Ponderosa pine, A - Aspen

4/ T - Tractor, HFT - High Flotation, C - Cable Systems

5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
81	Turkey Springs #2	Pagosa	7E, 13L0, H21D0-801 7E, 15D1, S21D0-801 7E, 15D1, H21D0-803 6B, 15D1, S21D0-804 T36N, R2½W, Sec. 25-37,34-36 T35N, R2½W, Sec. 1-3,10-15 T35N, R3W, Sec. 12,13,36	PP	3160						T	4.40	0.8	8.2
81	Willow Draw #2	Pagosa	4B, 07B0, S21D0-812 4B, 07B0, S21D0-823 T35N, R1E, Sec. 1,2,10-15	PP	1061						T	2.20	9.0	--
81	Fourmile	Pagosa	7E, 07D2, M22FL-826 T37N, R2W, Sec. 26,27,34,35	SF				666			T	6.70	5.5	--
81	Small Sales	Pagosa	Various	MC			19				T	0.37	--	--
81	Uncle Charlie Aspen Pine		7E, 17F2, H21D0-606 7E 13C0, H21D0-600 T35N, R5W, Sec. 8,9,16,17	A		106					T	A 0.89	1.0	1.9
81	Freeman Creek	Pine	7E, 13C0, H21D0-600 7E, 13C0, S22D0-630 7E, 13C0, S23D0-600 7E, 13C0, H21D0-604 T35N, R5W, Sec. 15,16,21,22,23, 25,26,27,28,34,35,36 T35N, R4W, Sec. 31 T34N, R4W, Sec. 6,7 T34N, R5W, Sec. 12	PP,MC	3807			200			T	MC 1.90 PP 3.50	3.7	17.5
81	Small Sales	Pine	Various	PP	192						T	0.21	--	--
81	TOTAL				11,930	519	2653	866	50	--		42.48 (PP 13.81) (SF 22.35) (MC 2.27) (A 4.05)	40.2	49.8

1/ The Management Area is indicated by a letter and number (example: 7C). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

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3/ SF - Spruce fir, MC - Mixed conifer, PP - Ponderosa pine, A - Aspen

4/ T - Tractor, HFT - High Flotation, C - Cable Systems

5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
82	Small Sales	Animas	Various	SF			20				T	0.39	--	--
82	August TM Salv.	Dolores	7E, 47B2, H21GO-007 T39N, R12W, Sec. 17,18,19	SF	185						T	0.80	--	--
82	Small Sales	Dolores	Various	SF	500						T	1.50	--	--
82	Dunton	Dolores	7E, 49D0, H21GO-004 7C, 49D0, H52GO-001 4B, 49D0, S21GO-001 T40N, R12W, Sec. 2,3,4,5 T41N, R11W, Sec. 30,31 T41N, R12W, Sec. 35,36	SF,A		66	250	1224	230		T	SF A 6.60 1.70	4.9	11.2
82	Grouse Point	Mancos	7E, 45B0, H21DO-201 T37N, R14W, Sec. 1-3,10-12	PP	1528						T	2.20	6.1	0.8
82	Small Sales	Mancos	Various	A		200					T	1.18	--	--
82	Mosca #2	Pagosa	7E, 11A2, H21GO-800 7C, 13J2, H32GO-800 7E, 13J2, I22GO-801 7C, 13J2, H52GO-803 7E, 13F3, H22GO-802 7C, 13H2, H21GO-803 7E, 13H2, H31GO-800 T37N, R5W, Sec. 34,35 T38N, R4W, Sec. 12,13 T38N, R4W, Sec. 11,12,19,20,29-32	SF			1253				T	7.30	8.2	15.3
82	Mule Mountain	Pine	7E, 13B0, H21DO-601 7E, 13A2, H21FO-607 7E, 13A2, H21DO-602 7C, 13A2, H32FO-600 T35N, R4W, Sec. 33,34 T34N, R4W, Sec. 3,4	PP,MC	877			76			T T	PP 1.10 MC 1.04	1.2	4.9

1/ The Management Area is indicated by a letter and number (example: 7C). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

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4/ T - Tractor, HFT - High Flotation, C - Cable Systems

5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
82	Small Sales	Pine	Various	PP	51						T	0.16	--	--
82	TOTAL				3141	266	1523	1300	230	--		23.97 (PP 3.46) (SF 16.59) (MC 1.04) (A 2.88)	20.4	32.2
83	Small Sales	Animas	7C, 33C0, H32F0-406 T37N, R8W, Sec. 10,11,15	SF			18				T	.36	--	--
83	Wild TM Salvage	Dolores	7E, 47F2, H21G0-008 T39N, R12W, Sec. 15	SF	110						T	0.65	--	--
83	Cinco Milas	Dolores	6B, 47B1, H21F0-001 7E, 47B1, H21G0-001 T39N, R13W, Sec. 25,26,35,36 T39N, R12W, Sec. 19,20,29,30	SF,A			1100	740	300		T	SF 2.30 A 3.00	--	11.0
83	Bradfield	Dolores	7E, 53B0, H21D0-009 7E, 53B0, S21D0-007 6B, 53B0, H21D0-003 6B, 53B0, S21D0-002 T40N, R16W, Sec. 5,6,7,8,17,18 T40N, R17W, Sec. 1,2,11,12,13,14,24	PP	3500						T	4.70	1.5	9.5
83	Small Sales	Dolores	Various	SF	800						T	2.05	--	--
83	Haycamp	Mancos	6B, 45B0, H21D0-201 6B, 45C0, H21D0-203 T37N, R14W, Sec. 1,2,12,13,14 23,26 T37N, R13W, Sec. 4-9,16-19	PP	6200						T	6.90	2.5	10.5
83	Small Sales	Mancos	Various	A		269					T	2.69	--	--

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5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
83	Chris Mountain	Pagosa	4B, 13A3, H22D0-800 6B, 13L0, H22D0-801 6B, 13L0, H22D0-805 6B, 13L0, S32D0-801 T35N, R3W, Sec. 15,21 22,23,27-29, 32,33	MC,PP	1430						T	PP 2.60 MC 0.90	1.3	6.3
83	Dutton	Pagosa	7E, 07D1, S22D0-809 6B, 07D1, S21D0-807 T36N, R2W, Sec. 3	MC		5	155				T	MC 0.60	--	.7
83	Small Sales	Pagosa	Various	SF			100				T	0.62	--	--
83	Bull Canyon	Pine	4B, 15B1, S22C0-606 4B, 15B1, S22D0-610 T34N-Ute, R5W, Sec. 5,9,16,19	PP	552						T	1.20	.5	4.3
83	Small Sales	Pine	Various	PP,SF	436						T	PP .09 SF 1.10	--	--
83	TOTAL				13,028	274	1373	740	300			29.76 (PP 15.49) (SF 7.08) (MC 1.50) (A 5.69)	5.8	42.3
84	Wallace Lake	Animas	4B, 33A0, S32F0-403 5B, 33A0, M21F0-402 7E, 33C0, H21G0-413 T36N, R8W, Sec. 5 T37N, R8W, Sec. 1,2,11,12	MC	85						T	.51	--	--
84	Can Bear It II	Animas	7E, 23B2, H22G0-412 7C, 33D0, H32F0-403 7E, 33D0, H21G0-414 7C, 33D0, H32G0-419 T37N, R7W, Sec. 6 T38N, R8W, Sec. 35,36 T38N, R7W, Sec. 30,31	SF	1461						T	2.10	0.5	9.1

B-6

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
84	Little Fish Aspen	Dolores	4B, 49C0, S22F0-000 4B, 49C0, H21F0-009 T41N, R12W, Sec. 30,31	A		350					T	4.50	2.7	--
84	Ponderosa Jack	Dolores	7E, 51D0, H22D0-002 7E, 51D0, M21D0-003 7E, 51D0, H21D0-037 7E, 51C1, H21D0-034 6B, 51D0, H51D0-010 6B, 51C1, H21D0-033 T38N, R15W, Sec. 1,12 T38N, R14W, Sec. 5,6,7,8,17,18 T39N, R15W, Sec. 15,16,21,28,32	PP	2000						T	3.00	2.7	5.0
84	Morrison Creek	Dolores	7E, 49F0, H21G0-010 7E, 49F0, H21G0-011 7E, 49F0, H21G0-012 T41N, R11W, Sec. 34,35,36	SF		50	550				T	4.80	1.0	2.0
B-7 84	Small Sales	Dolores	Various	SF	800						T	2.50	--	--
84	Driveway	Mancos	7E, 45D0, H21G0-200 7E, 45D0, H21F0-201 T38N, R12W, Sec. 16,17,18,19,20	A		300					T	3.00	--	4.9
84	Small Sales	Mancos	Various	A		250					T	2.50	--	--
84	Trail Ridge	Pagosa	7E, 11C2, M22F0-803 7E, 11C2, H21D0-805 7E, 11C2, H21F0-804 7E, 11A1, H21F0-805 T36N, R3W, Sec. 5,7,8,17-20 T37N, R3W, Sec. 5,7,8,17-20 T38N, R3W, Sec. 32	PP,MC,A	762	25		277		547	T	PP 1.53 MC 4.10 A .35	4.0	10.4
84	Aspen Spur	Pagosa	7C, 05I0, M32F0-808 7C, 05I0, M32F0-801 7C, 05I0, E72G0-825 T35N, R1E, Sec. 9,10,15,16	SF,MC,A	358	32					T	SF 0.56 MC 0.24 A 1.20	8.3	0.9

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
84	Small Sales	Pagosa	Various	SF			50				T	0.30	--	--
84	Beaver Slopes #2	Pine	7E, 17G2, H21G0-602 7E, 17G2, H22F0-601 7E, 17G2, S22F0-600 T36N, R5W, Sec. 30,31	SF			163				T	.52	--	--
84	Small Sales	Pine	Various	A		35					T	.48	--	--
84	TOTAL				5466	1042	763	277	0	547		32.19 (PP 4.53) (SF 10.78) (MC 4.85) (A 12.03)	19.2	32.3
85	Small Sales	Animas	6B, 37B0, S33G0-400 T36N, R10W, Sec. 2,11	A		72					T	.72	--	--
85	East Hermosa	Animas	2A, 35H1, H52G0-401 T39N, R9W, Sec. 19,20,21, 28,29,30	SF,A		23	862				HFT	SF 4.22 A 0.23	1.9	1.2
85	Can Bear It III	Animas	7C, 33C0, H32F0-406 7E, 33C0, H21G0-413 6B, 33C0, H22F0-404 T37N, R8W, Sec. 10,11,14,15	A		150					T	.90	.3	--
85	Tin Can	Animas	1B, 35H2, H21G0-403 1B, 35H1, H21G0-405 1B, 29A1, H52G0-403 T39N, R9W, Sec. 11,14,23	SF	200						T	1.08	.3	1.4
85	Deer Creek	Dolores	7E, 49A2, H21F0-010 T40N, R12W, Sec. 19,20,21,30	A		300					T	3.00	1.0	3.0
85	Clear Creek	Dolores	4B, 49C0, S22F0-000 4B, 49D0, I32GR-000 4B, 49D0, S22F0-001 T41N, R12W, Sec. 18,19	A,SF	225	60					T	A .60 SF .90	1.9	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas <u>1/</u> -Twp., Rge., Sec.	Timber Type <u>3/</u>	Net Acres Cut by Harvest System <u>2/</u>						Logging Method <u>4/</u>	Volume MMBF by Type	Road Miles <u>5/</u>	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
85	Head Priest	Dolores	7E, 47F2, H21GO-008 2A, 47F2, H31GO-000 2A, 47C0, H32GO-001 2A, 47C0, H21GO-014 2A, 47C0, H21GO-015 7E, 47C0, H21GO-028 7E, 47C0, H21GO-006 T39N, R11W, Sec. 6,7 T39N, R12W, Sec. 1,2,12	SF			1000			200	T,HFT	6.00	2.0	6.0
85	Small Sales	Dolores	Various	SF	800						T	2.50	--	--
85	Rush	Mancos	6B, 41A0, S21FO-201 6B, 41A0, S21FO-202 6B, 41A0, S21EO-202 7E, 41A0, S21GO-201 T37N, R12W, Sec. 4,7,8,9	A	100						T	1.00	--	0.6
85	Black Reservoir	Mancos	7E, 45D0, H21FO-201 T38N, R12W, Sec. 16,17,19-22	SF,A	230	325					T	SF 1.30 A 2.30	--	3.2
85	Small Sales	Mancos	Various	A	250						T	2.50	--	--
85	Benson Creek	Pagosa	6B, 05C0, M22D0-800 T33N, R1E, Sec. 4,5 T34N, R1E, Sec. 28,29, 31-34	PP	53		10	1512			T	4.50	6.0	1.0
85	Piedra Cade	Pagosa	6B, 11I2, M22FL-824 6B, 15D2, M22FL-825 6B, 15D1, S22D0-805 6B, 15D1, S22FO-801 T37N, R2W, Sec. 29,32,33 T36N, R2W, Sec. 4,5,6	MC,A	551	35					T	MC 2.70 A 0.30	6.0	--
85	Small Sales	Pagosa	Various	SF			50				T	0.30	--	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road M i l e s 5/ C R	
					IC	CC	SW-P	SW-S	SW-R	SEL				
85	Monument Park	Pine	7C, 13I1, H52GO-604 7C, 13I1, H52GO-603 7E, 13K, H22FO-803 7E, 13E0, H22FO-603 7C, 13E0, H32FO-603 7E, 13K1, H21FO-606 7C, 13K1, H52GO-608 T36N, R4W, Sec. 33,34 T35N, R4W, Sec. 1,2,3,9,10,11,12	SF,MC			1001			190	T, HFT(15%)	MC 2.30 SF .70	9.2	--
85	West Prong	Pine	7E, 13G1, H21GO-600 7C, 13G1, H31GO-603 7E, 13G1, H21GO-605 T36N, R5W, Sec. 5,7,8,17,18	SF	809					73	T	4.30	6.5	--
85	Small Sales	Pine	Various	MC,A		35	140				T	MC 0.20 A 0.30	--	--
85	TOTAL				2638	1255	3388	1512	--	463		42.85 (PP 4.50) (SF 21.30) (MC 5.20) (A 11.85)	35.1	16.4
86	Dutch Creek	Animas	2A, 35C0, H22GO-409 T38N, R9W, Sec. 3,4,9,10	SF						800	†	2.50	4.0	--
86	Small Sales	Animas	7C, 35H2, H32GO-411 6B, 33A0, H32FO-407 T37N, R8W, Sec. 22 T39N, R9W, Sec. 15	A		20					T	.20	--	--
86	Groundhog Aspen	Dolores	6B, 49C0, S21FO-000 6B, 49C0, H21FO-007 6B, 49B0, S21DO-013 6B, 49B0, S22EO-001 6B, 49B0, S22DO-018 6B, 49B0, S22DO-019 T39N, R13W, Sec. 4 T40N, R13W, Sec. 3,10,15, 22,27,33,34	A		850					T	6.00	14.0	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road M i l e s 5/ C R	
					IC	CC	SW-P	SW-S	SW-R	SEL				
86	Fader	Dolores	7E, 53B0, H21D0-002 6B, 55A0, H21D0-001 T41N, R17W, Sec. 2,3,4,5,9, 10,11,14,15 T42N, R17W, Sec. 29,30,31,32 33,34	PP				1500			T	3.00	--	7.0
86	Roaring Ridge	Dolores	2A, 47H1, H21G0-026 4B, 47G1, H52F0-018 4B, 47G1, H51G0-003 6B, 47G1, H21F0-013 6B, 47G1, H52F0-016 6B, 47G1, H21F0-014 7E, 47G1, H21G0-025 4B, 47G1, H51G0-002 T38N, R11W, Sec. 1,2,3,4,10,11 12,13,14,23,24	SF			800			500	T,HFT (30%)	4.00	2.0	7.0
86	Small Sales	Dolores	Various	SF	800						T	2.50	--	--
86	Caviness	Mancos	7C, 39B0, H31F0-200 7C, 39B0, I32G0-200 T36N, R12W, Sec. 13, 22-24	A		600					T	6.00	4.6	5.0
86	Small Sales	Mancos	Various	A		150					T	1.50	--	--
86	Lower Middle Mtn.	Pagosa	7E, 13K2, H22F0-800 7E, 13K2, H22D0-803 T35N, R3W, Sec. 5,6, 7,8,16,17,18,20,21	PP,SF,MC,A	490	20	900			60	T	PP 2.88 SF 3.12 MC 1.80 A 0.20	16.0	--
86	Small Sales	Pagosa	Various	SF			30				T	0.30	--	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	R o a d M i l e s 5/ C R	
					IC	CC	SW-P	SW-S	SW-R	SEL				
86	Lion Creek	Pine	7C, 19C1, S32FO-604 7C, 19C1, S32FO-600 7E, 19C1, S22FO-603 7E, 19C1, S22FO-604 7E, 19C2, S22FO-605 7C, 19D2, S32GO-605 T36N, R6W, Sec. 1,2,10,11,12, 13,14,15 T36N, R5W, Sec. 6,7	SF,MC	1314						165	T,HFT (10%) SF 1.50 MC 3.50	12.2	.5
86	Indian Creek	Pine	6B, 19E1, H22GO-612 6B, 19E1, H22GO-613 6B, 19E1, H32GO-609 7E, 19E2, H22GO-617 7E, 19E2, H22GO-614 T37N, R5W, Sec. 6,7,18 T37N, R6W, Sec. 1,12,13	SF	581							T,HFT (15%) 4.45	2.45	4.0
86	Small Sales	Pine	Various	SF,MC,A	271	55					T	SF .20 MC .30 A .35	--	--
86	TOTAL				3456	1695	1730	1500	--	1525		44.30 (PP 5.88) (SF 18.57) (MC 5.60) (A 14.25)	55.25	23.5
87	Grasshopper	Animas	7C, 33D0, I52GX-400 7E, 33D0, I22GO-401 7E, 33D0, H22GO-415 T38N, R8W, Sec. 2,3,10,11	SF	500						T	2.20	3.0	3.0
87	Small Sales	Animas	Various	SF			25				T	0.50	--	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas <u>1/</u> -Twp., Rge., Sec.	Timber Type <u>3/</u>	Net Acres Cut by Harvest System <u>2/</u>						Logging Method <u>4/</u>	Volume MMBF by Type	Road M i l e s <u>5/</u>	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
87	Long Park	Dolores	7E, 53C0, H21D0-010 7E, 53C0, H21D0-011 6B, 53C0, H51D0-006 6B, 53C0, H21D0-015 T40N, R16W, Sec. 14,15,22,23,27 28,32,33,34	PP	1000				1000		T	4.00	2.0	8.0
87	Barlow Creek	Dolores	9B, 43D0, S22G0-016 9B, 43D0, H52G0-011 9B, 43D0, I32GX-011 T40N, R10W, Sec. 15,16,21-24	SF	500						T - 70% HFT - 30%	7.00	6.0	4.0
87	Small Sales	Dolores	Various	SF	1500						T	3.00	--	--
87	Echo-Echo	Mancos	7E, 41C0, S21G0-203 7C, 41C0, S32F0-201 T37N, R12W, Sec. 23,24,26	A	100						T	1.00	--	0.6
87	Upper Turkey	Mancos	6B, 45C0, H21F0-203 6B, 45C0, S21F0-200 T37N, R12W, Sec. 31,32	A	300						T	3.00	--	2.0
87	Small Sales	Mancos	Various	A	180						T	1.80	--	--
87	Poison Park #2	Pagosa	7E, 13K2, H22F0-800 7E, 13K2, H22D0-803 T38N, R4W, Sec. 11,12	SF,A	30	270				30	T	SF 1.80 A 0.20	3.0	--
87	Devil Creek	Pagosa	7E, 13L0, H22D0-804 7E, 13L0, H22F0-804 T35N, R3W, Sec. 3,4,9,10,16	PP					900		T	2.50	--	4.5
87	Fish Creek	Pagosa	7C, 05E0, M32FL-802 4B, 05E0, E73G0-804 4B, 05E0, M32FL-839 4B, 05E0, E52F0-800 T34N, R2E, Sec. 3 T35N, R2E, Sec. 27,28,33,34	SF,MC,A	40					612	HFT	SF 1.10 MC 1.50 A 0.40	6.0	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
87	Small Sales	Pagosa	Various	SF			50				T	0.30	--	--
87	Snow Springs	Pine	7C, 13K1, H52G0-608 7E, 13K1, H22G0-604 7E, 13A2, S22D0-631 7E, 13A2, H22F0-605 7E, 13A2, H32G0-604 6B, 13K1, H21G0-604 T35N, R4W, Sec. 23,24,25 T35N, R3W, Sec. 18,19,30,31,32	PP,SF,MC	250		508	917			T, HFT	MC 0.75 PP 1.82 SF 2.70	15.9	2.0
87	Small Sales	Pine	Various	A		133					T	.85	--	--
87	TOTAL				3250	1283	853	2817	--	642		36.42 (PP 8.32) (SF 18.60) (MC 2.25) (A 7.25)	35.9	24.1
B-14	88 Butler #2	Animas	2B, 33B0, H63FX-401 2A, 33B0, H22G0-410 T39N, R9W, Sec. 26,27,28,33,34,35	SF						500	T	1.75	--	--
	88 Blodget	Animas	6B, 33A0, H21G0-415 7E, 33C0, H21G0-413 T37N, R8W, Sec. 11,14,15,22	A		75					T	.55	.5	.5
	88 Small Sales	Animas	2A, 33B0, I23DX-400 6B, 33B0, H22D0-402 T38N, R9W, Sec. 24,25,36 T38N, R8W, Sec. 19,30,31	SF	20	40					T	.30	--	--
	88 Wild Bill	Dolores	6B, 53B0, H21D0-003 6B, 53B0, H21E0-000 T41N, R17W, Sec. 21,22,25,26 27,35,36 T40N, R3W, Sec. 3	PP				2000			T	4.00	2.0	6.0

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5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
88	Twin Eagle	Dolores	7E, 49A2, H21FO-010 7E, 49C0, H21FO-011 4B, 47C0, H21GO-005 T40N, R12W, Sec. 25,26,27,28 29, 30, 31,33	SF,A	1000	300					T HFT (40%)	SF 4.00 A 3.00	6.0	3.0
88	Bear Creek	Dolores	7E, 47D1, H21GO-019 7E, 47D1, H21GO-024 7E, 47E1, H21GO-020 7E, 47E1, H21GO-023 7E, 47G1, H21GO-021 7C, 47G1, H31GX-000 7C, 47G1, H31GX-001 7E, 47G1, H21GO-002 7E, 47D1, H21HO-000 T38N, R11W, Sec. 20,21,27,28 29,34,35	SF			1000				T,HFT (30%)	3.00	2.0	5.0
88	Small Sales	Dolores	Various	SF	800						T	2.50	--	--
88	Silver Creek	Mancos	4B, 41B0, H21FO-209 4B, 41B0, S22FO-201 T37N, R12W, Sec. 2,3,9,10,11	A		250					T	2.00	--	4.0
88	East Mancos	Mancos	4B, 41D0, H21D0-210 4B, 41D0, H21D0-214 T36N, R12W, Sec. 17,20	PP				350			T	.30	--	1.0
88	Pole Spring #2	Mancos	7E, 45D0, H21GO-200 T38N, R12W, Sec. 21-23,26,27	SF			600				T	3.00	--	--
88	Small Sales	Mancos	Various	A		200					T	2.00	--	--
88	Lower Sandbench	Pagosa	7E, 11A2, H21GO-813 T37N, R4W, Sec. 9,10,14,15,22,23 T36N, R4W, Sec 1,12 T36N, R3W, Sec. 6,7	SF,MC	1110		400			170	T	SF 5.30 MC 2.70	2.0	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas <u>1/</u> -Twp., Rge., Sec.	Timber Type <u>3/</u>	Net Acres Cut by Harvest System <u>2/</u>						Logging Method <u>4/</u>	Volume MMBF by Type	Road M i l e s <u>5/</u>	
					IC	CC	SW-P	SW-S	SW-R	SEL			C	R
88	East Creek	Pine	7C, 19D2, S32G0-605 7C, 19D3, S32G0-604 T37N, R5W, Sec. 27,28,32,33,34 T36N, R5W, Sec. 5,6	SF	1451					281	T, HFT (30%)	7.30	10.5	--
88	Small Sales	Pine	Various	A	130						T	.83	--	--
88	TOTAL				4381	995	2000	2350	--	951		42.53 (PP 4.30) (SF 27.15) (MC 2.70) (A 8.38)	23.0	19.5
89	Small Sales	Animas	6B, 33A0, H21G0-415 6B, 33A0, H32F0-407 T37N, R8W, Sec. 15,22	A	50						T	.30	--	--
89	Ferris Canyon	Dolores	7E, 53E1, H21D0-012 7E, 53E1, H21D0-013 6B, 53E1, H21E0-003 7E, 53E2, H21D0-017 T39N, R16W, Sec. 8,9,10,11,12 13,14,15,17	PP	1000						T	2.00	--	5.0
89	Sheep Mountain	Dolores	9B, 43E0, S22G0-012 9B, 43E0, S22G0-013 9B, 43E0, S22G0-011 9B, 43F0, M22G0-000 9B, 43F0, S22G0-014 T41N, R9W, Sec. 19,30 T41N, R10W, Sec. 24,25,30	SF	433						T - 70% HFT - 30%	6.50	10.0	--
89	White Knuckles	Dolores	6B, 47B1, H21F0-001 6B, 47A0, H21F0-002 T39N, R13W, Sec. 34,35 T38N, R13W, Sec. 2,3	A	400						T	3.50	3.0	3.0
89	Small Sales	Dolores	Various	SF	1500							3.00	--	--

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5/ C - Construction, R - Reconstruction

Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road M i l e s 5/ C R	
					IC	CC	SW-P	SW-S	SW-R	SEL				
89	Lucy	Mancos	6B, 41B0, S21FO-203 6B, 41B0, H21FO-208 T37N, R12W, Sec. 22,27	A		200					T	2.00	2.0	2.0
89	Sawmill	Mancos	4B, 37A0, H31FO-204 4B, 37A0, S22DO-208 4B, 37A0, H31FO-202 T36N, R11W, Sec. 25,26,35,36	A		300					T	3.00	7.0	--
89	Small Sales	Mancos	Various	A		200					T	2.00	--	--
89	Big Branch	Pagosa	7C, 05C0, M32DO-800 4B, 05C0, M32DO-801 T34N, R1E, Sec. 14-16,21,22 27-29	PP	218			343			T	2.60	4.0	1.0
89	Quien Sabe	Pagosa	7E, 07D2, S22FO-805 7E, 07D2, M22FL-826 6B, 07D2, E22FO-802 6B, 07D2, M22FL-828 T36N, R2W, Sec. 2-3 T37N, R2W, Sec. 35-36	SF,A	245	250				55	HFT,T	SF 3.00 A 1.50	4.0	--
89	Trout Creek	Pine	7E, 13G1, H21GO-600 6B, 13G1, H32GO-600 6B, 13G1, H22FO-600 T36N, R5W, Sec. 8,9,10,15, 16,17,18,20,21,22	MC			824			266	T	5.90	16.1	--
89	Zabel Canyon	Pine	2A, 17A1, S22A0-601 T34N Ute, R6W, Sec. 20,21,28,29	PP				238			T	.50	--	1.1
89	Small Sales	Pine	Various	A		130					T	.83	--	--
89	TOTAL				2963	1963	824	581	--	321		36.63 (PP 5.10) (SF 12.50) (MC 5.90) (A 13.13)	46.1	12.1

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume MMBF by Type	Road M i l e s 5/ C R	
					IC	CC	SW-P	SW-S	SW-R	SEL				
90	Grassy Creek	Animas	2B, 35G2, H32G0-401 2B, 35G2, H22G0-400 T40N, R9W, Sec. 20,29,30,31,32 T40N, R10W, Sec. 36	SF						600	T	4.00	4.0	4.0
90	Lower House Creek	Dolores	7E, 51D0, H22D0-002 7E, 51D0, H21D0-037 4B, 51D0, S22D0-007 6B, 51D0, H21D0-010 T38N, R15W, Sec. 2,10,11,12 13,14,15,23	PP	1200						T	2.00	1.0	3.0
90	Italian Canyon	Dolores	7E, 45A0, H21D0-038 T37N, R15W, Sec. 1 T37N, R14W, Sec. 5,6	PP	700							1.00	--	2.0
90	Rocky Draw	Dolores	6B, 51C2, H21D0-040 6B, 51C2, H21D0-003 6B, 51C2, H21D0-033 T39N, R14W, Sec. 13,14,15	PP,A	700	150					T	PP 1.00 A 1.00	1.0	3.0
90	Rio Lado	Dolores	7E, 47G1, H21F0-015 7C, 57G1, H31G0-004 T38N, R11W, Sec. 6,8,16	A		350					T - 80% HFT - 20%	2.00	3.0	2.0
90	Eagle Creek	Dolores	9B, 49E0, H22G0-000 9B, 49E0, H22G0-001 9B, 49E0, H22G0-002 T40N, R11W, Sec. 4,5,7,8,9,17	SF	1280	256					T - 70% HFT - 30%	6.00	5.0	--
90	Small Sales	Dolores	Various	SF	1000						T	3.00	--	--
90	Morgan	Mancos	7E, 45D0, H21F0-201 6B, 45D0, H21F0-200 T38N, R13W, Sec. 13-15,22-24	A		550					T	5.50	3.0	6.0
90	Small Sales	Mancos	Various	A		200					T	2.00	--	--

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/							Logging Method 4/	Volume MMBF by Type	Road Miles 5/	
					IC	CC	SW-P	SW-S	SW-R	SEL				C	R
90	Middle Mountain	Pagosa	7E, 13I2, H22FO-803 7E, 13K2, H22FO-800 T35N, R3W, Sec. 5-8 T35N, R4W, Sec. 1,12 T36N, R3W, Sec. 31,32 T36N, R4W, Sec. 36	SF	1260	50				140		T	8.00	8.0	--
90	Wolf Creek Pass	Pagosa	2B, 09E0, E83GX-810 2B, 09E0, M21GO-800 2A, 09E0, E72GL-800 T38N, R1E, Sec. 36 T37N, R2E, Sec. 6	SF						440		T	1.80	--	--
90	Rocky Basin	Pine	6B, 19D1, H22DO-607 6B, 19D1, H22GO-619 6B, 19D2, H32DO-605 6B, 19D3, M22GL-600 6B, 19D3, H22GO-616 T36N, R6W, Sec. 1,2 T37N, R6W, Sec. 36 T37N, R5W, Sec. 21,22,27-30	SF	1090						117	T, HFT (20%)	4.70	13.5	1.0
90	South Monument	Pine	7C, 13K1, H52GO-608 7E, 13K1, H22GO-604 6B, 13K1, H21GO-604 T35N, R4W, Sec. 11,12,13,14, 23,24 T35N, R3W, Sec. 18	SF	834					102		T	3.50	3.7	1.0
90	Salt Creek	Pine	2A, 17A2, S22CO-610	PP				95				T	.20	--	.6
90	Small Sales	Pine	Various	A		130						T	.83	--	--
90	TOTAL				8064	1686	--	95	--	1399			46.53 (PP 4.20) (SF 31.00) (NC --) (A 11.33)	42.2	22.6

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Ten-Year Timber Sale Summary (Continued)

Fiscal Year	Sale Name	Ranger District	Area Location -Management, Geographic, and Capability Areas 1/ -Twp., Rge., Sec.	Timber Type 3/	Net Acres Cut by Harvest System 2/						Logging Method 4/	Volume		
					IC	CC	SW-P	SW-S	SW-R	SEL		MMBF by Type	R o a d M i l e s 5/ C R	
GRAND TOTAL					58,317	10,978	16,107	12,038	580	5,848		377.66	323.15	274.8
												(PP 69.59)		
												(SF 185.92)		
												(MC 31.31)		
												(A 90.84)		

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Ten-Year Reforestation Program

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area	- Twp., Rge., Sec.		Site Prep	Plant	
81	Animas	2A, 33B0, H22G0-410 T39N,R9W, Sec. 26, 27		100			ES
81	Dolores	7E, 53B0, H21D0-009 7E, 53B0, S21D0-007 T40N,R16W, Sec. 19, 30 T40N,R17W, Sec. 25		115			PP
81	Dolores	4B, 55B0, H21C0-004 7E, 55D0, H21D0-005 7C, 55D0, S32D0-000 7E, 55B0, H21D0-004 7E, 55B0, H22D0-000 T42N,R16W, Sec. 31 T42N,R17W, Sec. 36 T41N,R16W, Sec. 6, 7, 18 T41N,R17W, Sec. 1, 12		769			PP
81	Mancos	7E, 41D0, S21G0-204 7E, 41D0, S21G0-205 T37N,R12W, Sec. 35		190			PP
81	Pagosa	4B, 05B0, S22D0-832 6B, 03A0, H22D0-808 T33N,R1W, Sec. 1, 2 T33N,R1E, Sec. 7		233			PP
81	Pine	6B, 23B1, I22G0-608 6B, 23B1, I32G0-606 6B, 23B1, M32GL-600 6B, 23B1, I32G0-604 T37N,R7W, Sec. 10, 15, 16, 20, 21, 22		390			ES

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/~ Management, Geographic, and Capability Area			Site Prep	Plant	
		- Twp., Rge., Sec.					
82	Dolores	7E, 47D1, H21GO-019 7E, 47D1, H21GO-024		200			ES
82	Dolores	6B, 55B0, S32D0-000 6B, 55C0, H22D0-001 6B, 55C0, S31EO-001 6B, 53B0, H21D0-003 7E, 55B0, H22D0-000 T41N,R16W, Sec. 7, 16-22, 27-33		1563			PP
82	Dolores	6B, 51C2, H21D0-003 6B, 51C2, H22D0-003 7E, 51C1, H21D0-034 7E, 51C1, H21D0-039 7E, 45A0, H21D0-038 T39N,R14W, Sec. 14, 15, 23, 26, 35		356			PP
83	Animas	7C, 29D0, H52GO-409 7C, 29D0, H32GO-408 T39N,R9W, Sec. 2, 3, 10, 11 T40N,R9W, Sec. 21, 22, 27, 28, 34		200			ES
83	Animas	7C, 33D0, H32GO-419 T38N,R8W, Sec. 23, 24, 25, 26		104			

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area	- Twp., Rge., Sec.		Site Prep.	Plant	
83	Dolores	7E, 47B2, H21GO-007 7E, 47F2, H21GO-008 7E, 47D1, H21GO-003 2A, 47D1, H51FO-000 2A, 47D1, H52GO-004 2A, 47D1, H21GO-006 T39N,R12W, Sec. 1, 2, 3, 4, 9, 10, 11, 15, 16, 22, 28		597			ES
83	Dolores	7E, 53B0, H21DO-003 6B, 53D0, H21DO-008 T40N,R16W, Sec. 5, 6 T40N,R17W, Sec. 1		350			PP
83	Dolores	7E, 51D0, H21DO-037 7E, 45A0, H21DO-038 T38N,R14W, Sec. 16- 20, 36 T37N,R14W, Sec. 6 T37N,R15W, Sec. 1		387			PP
83	Dolores	7E, 51D0, H22DO-002 7E, 51D0, H21DO-037 4B, 51D0, H21CO-010 4B, 51D0, S22DO-007 T38N,R15W, Sec. 2, 3, 10, 11, 14, 23, 26		449			PP
83	Dolores	4B, 55B0, H21CO-004 6B, 55B0, H21DO-005 T42N,R16W, Sec. 31 T42N,R17W, Sec. 36 T41N,R17W, Sec. 1		317			PP

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area					
		Twp., Rge., Sec.			Site Prep	Plant	
83	Dolores	4B, 53E2, H21D0-019 6B, 51A2, H21D0-020 6B, 51A1, H21D0-028 T39N,R15W, Sec. 18, 19		322			PP
83	Mancos	7E, 45D0, S21G0-200 T38N,R12W, Sec. 25, 26, 36		196			ES
83	Pagosa	4B, 03B0, S23D0-817 T33N,R1E, Sec. 32		50			PP
83	Pagosa	4B, 07A0, H21D0-807 T34N,R2W, Sec. 18, 19		65			PP
83	Pagosa	2B, 09I0, M21G0-800 T37N,R2E, Sec. 6		35			ES
83	Pine	6B, 23B1, I22G0-608 6B, 23B1, I22G0-611 T37N,R7W, Sec. 10, 15, 14		138			ES
83	Pine	7C, 19B0, H32G0-608 7E, 19B0, M22G0-600 7E, 19B0, H22F0-609 T37N,R6W, Sec. 10, 11, 14, 15		177			ES
83	Pine	4B, 17B1, S22A0-603 T34N (Ute),R6W, Sec. 8, 9, 16		57			PP

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Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area			Site Prep	Plant	
		- Twp., Rge., Sec.					
84	Animas	7C, 29D0, H52G0-409 T39N,R9W, Sec. 2, 3		59			ES
84	Animas	7E, 35H2, H22G0-403 T39N,R9W, Sec. 6, 7, 8		334			ES
84	Animas	7C, 35G2, H32G0-403 T39N, R10W, Sec. 10, 11, 14, 15		99			ES
84	Animas	2B, 35G2, H22G0-400 H22G0-402 T39N,R9W, Sec. 6 T40N,R9W, Sec. 29, 30, 31		154			ES
84	Dolores	7E, 49D0, I22G0-000 7C, 49D0, I31G0-001 T41N,R12W, Sec. 14, 15, 16, 17, 21, 22, 28		380			ES
84	Dolores	6B, 47F1, H31G0-003 T38N,R11W, Sec. 17, 18		100			ES
84	Dolores	7E, 47E1, H21G0-020 T38N,R11W, Sec. 27, 28		100			ES
84	Dolores	7E, 53E1, 421D0-013 7E, 53E2, H21D0-017 T39N,R16W, Sec. 15, 22, 23		658			PP

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

Ten-Year Reforestation Program (Continued)

Year	District	Location		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area	- Twp., Rge., Sec.		Site Prep	Plant	
84	Mancos	2A, 41D0, S21G0-208 T36N,R12W, Sec. 1		72			PP
84	Mancos	7E, 41D0, S22F0-200 T37N,R12W, Sec. 35		60			PP
84	Mancos	7C, 41D0, I32GX-200 T37N,R11W, Sec. 30		58			PP
84	Pagosa	7E, 13F3, H22G0-802 13H2, H22G0-803 T37N,R5W, Sec. 36		100			ES
84	Pine	7E, 19B0, M22G0-600 7C, 19B0, H32G0-608 7E, 19B0, H22G0-605 7E, 23C1, H22G0-606 T37N,R6W, Sec. 2, 3, 10, 11		335			ES
85	Animas	7C, 35E0, H53G0-400 T37N,R10W, Sec. 16, 17, 20, 21		118			ES
85	Animas	2A, 33A0, S32G0-404 T37N,R8W, Sec. 26-35		196			ES
85	Animas	7C, 33D0, H32G0-419 7E, 33D0, H22GX-401 T38N,R8W, Sec. 24, 25, 36		69			ES
85	Animas	7E, 33D0, I22G0-401 T38N,R8W, Sec. 10, 11, 14		138			ES

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area			Site Prep	Plant	
		- Twp., Rge., Sec.					
85	Animas	7E, 23B2, H22GO-412 T37N,R8W, Sec. 1, 12, 13, 14		119			ES
85	Dolores	7E, 47G1, H21GO-025 4B, 47G1, H51FO-018 4B, 47G1, H51GO-003 T38N,R11W, Sec. 1, 12, 13, 24		706			ES
85	Dolores	7E, 47B2, H21GO-007 7E, 47F2, H21GO-008 7E, 47F1, H21GO-003 2A, 47F1, H51FO-000 7E, 47C0, H21GO-028 7C, 47C0, H52GO-004, 7E, 47C0, H21GO-006 T39N,R12W, Sec. 1, 2, 3, 4, 9, 10, 11, 15, 16, 22, 28		400			ES
85	Dolores	2A, 43A1, H52GO-006 2A, 43A1, H21GO-016 T39N,R10W, Sec. 16		112			ES
85	Mancos	7E, 45D0, H21FO-204 T38N,R12W, Sec. 28,34		200			ES
85	Pagosa	7E, 13H2, H22GO-803 T37N,R5W, Sec. 23		100			ES
85	Pine	7E, 23C1, H22GO-606 7C, 23C1, H32GO-605 T37N,R6W, Sec. 2, 3 T38N,R6W, Sec. 33, 34		371			ES

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

Ten-Year Reforestation Program (Continued)

Year	District	L o c a t i o n		Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
		1/- Management, Geographic, and Capability Area			Site Prep	Plant	
		- Twp., Rge., Sec.					
85	Pine	6B, 17F2, S23D0-605 T35N,R6W, Sec. 36		10			PP
85	Pine	6B, 13G1, H21G0-601 T36N,R5W, Sec. 20, 29		47			ES
86	Dolores	7E, 53B0, H21D0-002 6B, 55A0, H21D0-001 T41N,R17W, Sec. 2, 3, 4, 5, 9, 10, 11, 14, 15 T42N,R17W, Sec. 29, 30, 31, 32, 33, 34			1,500	750	PP
86	Pagosa	6B, 05C0, M22D0-800 T33N, R1E, Sec. 4, 5 T34N, R1E, Sec. 28, 29, 31-34			1,512	756	PP
87	Dolores	7E, 53C0, H21D0-010 7E, 53C0, H21D0-011 6B, 53C0, H51D0-006 6B, 53C0, H21D0-015 T40N,R16W, Sec. 14, 15, 22, 23, 27, 28, 32, 33, 34			1,000	500	PP
87	Dolores	9B, 43D0, S22G0-016 9B, 43D0, H52G0-011 9B, 43D0, I32GX-011 T40N,R10W, Sec. 15, 16, 21-24			500	500	ES

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

Ten-Year Reforestation Program (Continued)

Year	District	Location 1/- Management, Geographic, and Capability Area - Twp., Rge., Sec.	Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
				Site Prep	Plant	
87	Pagosa	7E, 13L0, H22D0-804 7E, 13L0, H22F0-804 T35N,R3W, Sec. 3, 4, 9, 10, 16		900	450	PP
87	Pine	7C, 13K1, H52G0-608 7E, 13K1, H22G0-604 7E, 13A2, S22D0-631 7E, 13A2, H22F0-605 7E, 13A2, H32G0-604 6B, 13K1, H21G0-604 T35N,R4W, Sec. 23, 24, 25 T35N,R3W, Sec. 18, 19, 30, 31, 32		917	459	ES
88	Animas	2A, 33B0, I23DX-400 6B, 33B0, H22D0-402 T38N, R9W, Sec. 24, 25, 36 T38N, R8W, Sec. 19, 30, 31		40	40	ES
88	Dolores	6B, 53B0, H21D0-003 6B, 53B0, H21E0-000 T41N,R17W, Sec. 21, 22, 25, 26, 27, 35, 36 T40N,R3W, Sec. 3		2,000	1,000	PP
88	Mancos	4B, 41D0, H21D0-210 5B, 41D0, H21D0-214 T36N,R12W, Sec. 17, 20		350	175	PP

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

Ten-Year Reforestation Program (Continued)

		L o c a t i o n			Reforestation		
		1/- Management,			Needs on		
		Geographic, and		Non-stocked	Future Sale Areas		
		Capability Area		Lands	(Acres)		Species
Year	District	- Twp., Rge., Sec.		(Acres)	Site Prep	Plant	
89	Dolores	7E, 53B0, H21DO-002 6B, 53A0, H21DO-001 T41N,R17W, Sec. 5, 6, 7 T42N,R17W, Sec. 30, 31			500	250	PP
89	Dolores	9B, 43E0, S22GO-012 9B, 43E0, S22GO-013 9B, 43E0, S22GO-011 9B, 43F0, M22GO-000 9B, 43F0, S22GO-014 T41N,R9W, Sec. 19, 30 T41N,R10W, Sec. 24, 25, 30			433	433	ES
89	Pagosa	7C, 05C0, M32DO-800 4B, 05C0, M32DO-801 T34N,R1E, Sec. 14-16, 21, 22, 27-29			343	172	PP
89	Pine	2A, 17A1, S22A0-601 T34N Ute, R6W, Sec. 20, 21, 28, 29			238	119	PP
90	Dolores	9B, 49E0, H22GO-000 9B, 49E0, H22GO-001 9B, 49E0, H22GO-002 T40N, R11W, Sec. 4, 5, 7, 8, 9, 17			256	256	ES
90	Dolores	7E, 53B0, H21DO-002 6B, 53A0, H21DO-001 6B, 53A0, H51DO-002 T41N,R17W, Sec. 4, 5, 8, 9 T42N,R17W, Sec. 32, 33			500	250	PP

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21GO-414).

Ten-Year Reforestation Program (Continued)

Year	District	Location 1/- Management, Geographic, and Capability Area - Twp., Rge., Sec.	Non-stocked Lands (Acres)	Reforestation Needs on Future Sale Areas (Acres)		Species
				Site Prep	Plant	
90	Mancos	7E, 41C0, S21G0-206 7E, 41C0, S21G0-202 T37N,R12W		700	700	ES
90	Pagosa	7E, 13I2, H22F0-803 7E, 13K2, H22F0-800 T35N, R3W, Sec. 5-8 T35N, R4W, Sec. 1, 12 T36N, R3W, Sec. 31, 32 T36N, R4W, Sec. 36		50	50	ES
90	Pine	2A, 17A2, S22C0-610		95	48	PP
90	Pine	6B, 13K1, H21G0-604 T35N,R4W, Sec. 23, 24, 25		50	50	DF

1/ The Management Area is indicated by a letter and number (example: 7E). This is followed by a four character identification of the Geographic Area (example: 33D0). The Capability Areas are designated by nine characters (example: H21G0-414).

APPENDIX C

TEN-YEAR ARTERIAL, COLLECTOR, AND LOCAL
ROADS NEEDING CAPITAL INVESTMENT WORK

Ten-Year Arterial, Collector, and Local Roads Needing Capital Investment Work ^{1/}

Fiscal Year	Road Name	Road Number	Location Twp., Rge., Sec.	Termini	Length (Miles)	ROW Status	Proposed Development
81	East Vallecito	603	T36N,R6W, Sec. 18, 19; T36N,R7W, Sec. 13	Junction Road #600 to east side of Vallecito Dam	1.3	--	Upgrading, widening and paving
82	East Vallecito	603	T36N,R6W, Sec. 9, 16, 17, 19, 20	East side of Vallecito Dam to Pine Point Campground	3.5	--	Upgrading, widening and gravel surfacing
82	Pole Springs	364	T38N,R12W, Sec. 19, 20, 28, 30	Pole Springs Road #364	3.0	--	90% new construction
83	West Dolores	535	T41N,R11W, Sec. 22, 23, 24, 25, 27	Navajo Lake Trail to meadows	3.7		Reconstruction
84	West Dolores	535	T39N,R13W, Sec. 8, T40N,R13W, Sec. 13	0.8 miles at Cottonwood Creek 0.6 miles near Fish Creek 0.7 miles Dead Mans Curve	2.1	--	Reconstruction
85	Blanco River	656	T34N,R1E, Sec. 28, 29, 31, 32	End of existing road 2.5 miles east	2.5	--	New Construction
85	Caviness Mountain	353	T36N,R12W, Sec. 21, 22, 23, 24, 29, 32	About 1 mile beyond radio tower road	7.5	--	Primarily Reconstruction/Construction
85	East Creek	852	T36N,R6W, Sec. 9, 10, 11, 12	Junction East Vallecito 7.2 miles east	7.2	--	New Construction
85	West Dolores	535		West Dolores Campground Curve 0.4 miles Riverside Encroachment 1.1 miles	1.5	--	Reconstruction
86	Hermosa Park	578	T39N,R9W, Sec. 23, 24	U.S. Highway #550 to Elbert Creek Road	1.5	--	Reconstruction Resurfacing
86	Pine River	602	T36N,R6W, Sec. 4, 9; T37N,R6W, Sec. 33	Middle Mountain Campground to pavement	2.5	--	Upgrading by widening and gravel surfacing
86	Turkey Springs	629	T34N,R3W, Sec. 2, 3, 11	U.S. Highway #160 to junction of Road #628	2.9	Complex, Several Cases	Reconstruction
86	West Dolores	535	T39N,R14W, Sec. 36	Junction Colorado 145 0.5 miles north	0.5	--	Reconstruction
87	Florida	596	T37N,R7W, Sec. 30, 31	End of County Road to Forest boundary	2.0	--	Reconstruct, including gravel surfacing, drainage, double lane
87	Missionary Ridge	682	T37N,R8W, Sec. 31, 32,	First switchback to switchback #13	5.0	--	Reconstruction Resurfacing
88	Junction Creek	543	T36N,R10W, Sec. 36	Forest boundary to campground	1.5	--	Reconstruction Resurfacing-Paving
88	Piedra	631	T36N,T37N,R3W, Sec. 2, 3, 9, 16, 21	South of Piedra River to 5 miles north	5.0	--	Reconstruction
88	Rock Springs	556	T38N,R13W, Sec. 13, 22, 23, 24, 25, 27, 28	Junction Road #364 to Road #560	5.9	--	Reconstruction w/surfacing
89	Ground Hog	533	T41N,R13W, Sec. 23, 25, 27	Reservoir to Forest boundary	3.0	1 case	Reconstruction
89	Missionary Ridge	682	T38N,R8W, Sec. 3, 10, 14, 15	Tank Creek to Grass-hopper	5.0	--	Construction Reconstruction Surfacing
86-90	West Dolores	535		Colo. 145 - Meadows	14.0	--	Reconstruction by FHWA

^{1/} Roads constructed by timber purchasers are not included.

APPENDIX D

TEN-YEAR TRAIL CONSTRUCTION AND
RECONSTRUCTION SUMMARY

Ten-Year Trail Construction And Reconstruction Summary

Fiscal Year	District	Trail Name	Trail Number	Location Twp., Rge., Sec.	Termini	Length	ROW Status	Proposed Development
82	Mancos	Highline National Recreation	520	T.37N., R.11W.	Kennebec Pass-Bear Creek to Grindstone	5.0	-	Reconstruction Trailhead reconst. top Kennebec Pass
84	Animas	Purgatory	511	T.39N., R.8W., S.30, and 31	From Purgatory Flats to Animas River	1.5	-	New construction
84	Mancos	Bear Creek	607	T.38N., R.12W.	Dolores River to 3 miles above	3.0	-	Reconstruction Trailhead const.
84	Pine	Columbine Pass	504	T.38N., R.6W., S.4 and 5	From 1 mile above junction with Trail #529 to 2 miles above junction with Trail #529	1.0	-	Relocate trail to better grade and drainage
84	Pine	Pine River	523	T.37N., R.5W., S.8, 9, and 17	From Lost Canyon to junction Trail #528	2.0	-	Reconstruction
85	Animas	Continental Divide	8138	T.41N., R.6W., S.20, 29, and 32 T.40N., R.6W., S.5, 8, 17, and 20	From Stony Pass to Eldorado Lake	7.0	-	New construction and reconstruction
85	Dolores	Navajo Lake	6352	T.41N., R.11W., S.2	Trailhead to Navajo Lake	5.0	-	Reconstruction
85	Pagosa	Four Mile	569	T.37N., R.2W., S.2, 11, 12, 13, and 14	Road #645 to Four Mile Lake	5.2	-	Reconstruct
85	Pagosa	Treasure Falls	563	T.37N., R.1E., S.16	Loop Trail, Colo. Highway #160 to Colo. Highway #160	1.0	-	Reconstruct Replace 1 bridge
85	Pine	Pine River	523	T.38N., R.5W., S.27	Vicinity of Falls Creek	0.3	-	Reconstruction
85	Pine	Pine River	523	T.38N., R.5W., S.14	Flag Mountain area to junction Trail #527	1.0	-	Reconstruction
85	Pine	Vallecito	529	T.37N., R.6W., S.4, 9 and 16	Junction Road #706 to Twin Bridge area	3.0	-	Reconstruction
86	Animas	Engineer Mtn.	508	T.39N., R.9W., S.1 and 12 T.40N., R.8W., S.14, 19, 30, and 31 T.40N., R.9W., S.13 and 24	From U.S. Highway 550 to Rico-Silverton Trail	8.0	-	Reconstruction
86	Animas	Rico-Silverton	507	T.40N., R.9W., S.1, 10, 12, 13, 14, 15, 19, 20, 21, 22, 29, and 30 T.41N., R.9W., S.25 and 36	From Bolam Pass to South Fork Mineral Creek	9.5	-	New construction and reconstruction
86	Pagosa	Palisade Meadows	651	T.39N., R.2W., S.30 and 31	Trail #588 to Continental Divide	1.8	-	Reconstruction
86	Pagosa	Quartz Creek	571	T.36N., R.2E., S.3, 9, 14, 15, 16, 22, 23, and 26	Road #684 to Trail #572	8.0	-	Reconstruction
86	Pagosa	West Fork	561	T.37N., R.1W., S.1	N/A	.5	1 Case	Rehabilitate Burro Bridge and approaches

Ten-Year Trail Construction And Reconstruction Summary

Fiscal Year	District	Trail Name	Trail Number	Location Twp., Rge., Sec.	Termini	Length	ROW Status	Proposed Development
86	Pagosa	West Fork	561	T.38N., R.1W., S.25 and 26	N/A	1.0	1 Case	Reconstruction
86	Pine	Continental Divide (La Vaca Area)	564	T.40N., R.4W., S.31 and 32	From junction of Trail #523 at Weminuche Pass to 1.5 miles above junction.	1.5	-	Reconstruction
86	Pine	Rock Creek	655	T.39N., R.6W., S.14 and 23	Rock Creek Meadows Area	1.0	-	Corduroy tread
86	Pine	Transfer Park (Burnt Timber Cr.)	667	T.37N., R.7W., S.7, 18, and 19	From junction Road #13071 to 2 miles above junction of Road #13071	2.0	-	Reconstruction
86	Pine	Vallecito	529	T.38N., R.6W., S.28	That portion of trail in Section 28	1.0	-	Reconstruction
86	Pine	Vallecito	529	T.38N., R.6W., S.15, and 22	Second Creek Bridge to Dead Horse Creek	1.0	-	Reconstruction
86	Pine	Vallecito	529	T.38N., R.6W., S.4	From 0.5 miles below junction Trail #504 to junction of Trail #504	0.5	-	Reconstruction
86	Pine	Vallecito	529	T.39N., R.6W., S.14 and 21	Sunlight Creek to junction Trail #655	2.0	-	Reconstruction
86	Pine	Vallecito	529	T.39N., R.6W., S.3, 4 and 10	Junction Trail #655 to Stormy Gulch - segments of this area	1.0	-	Reconstruction
86	Pine	Vallecito	529	T.39N., R.6W., S.4 T.40N., R.6W., S.33 and 34	Stormy Gulch to above Nebo Creek	1.5	-	Reconstruction
87	Animas	Clear Creek	550	T.37N., R.10W., S.13, 14, 15, 16, 21, and 22 T.37N., R.9W., S.7, 8, and 18	From Good Hope Road to Hermosa Creek	5.5	-	Reconstruction and new construction
87	Animas	Elk Creek	503	T.40N., R.7W., S.16, 17, 21, 22, 23, and 24 T.40N., R.6W., S.19, 20, and 21	From Animas River to Continental Divide	8.2	-	Reconstruction
87	Dolores	Calico	6491	T.38N., R.12W., S.3	Meadows out 2.0 miles	2.0	1 case	Reconstruction
87	Dolores	Navajo Lake	6352	T.41N., R.10W., S.1	Navajo Lake to Forest boundary	3.0	-	Reconstruction
87	Mancos	Bear Creek	607	T.38N., R.11W.	From 3 miles above Dolores River to Gold Run Trail	3.0	-	Reconstruction
87	Pagosa	Blanco River	573	T.35N., R.2E., S.4, 5, 8, 9, 16, 20, 21, and 29	Road #657 to Trail #572	8.0		Reconstruction
87	Pagosa	Indian Cr. Cutoff	652	T.39N., R.2W., S.28 and 29	Trail #588 to Continental Divide	1.4	-	Reconstruction
87	Pagosa	Turkey Creek	580.2	T.37N., R.1W., S.16, 17, and 21	N/A - Spot Reconstruction	1.0	-	Reconst. through cliffs at wilderness boundary

Ten-Year Trail Construction And Reconstruction Summary

Fiscal Year	District	Trail Name	Trail Number	Location Twp., Rge., Sec.	Termini	Length	ROW Status	Proposed Development
87	Pagosa	Turkey Creek	580.3	T.37N., R.1W., S.5 and 6	N/A - Spot Reconstruction	1.0	-	Relocate and Reconst.
87	Pine	Divide Lake	539	T.39N., R.4W., S.19 and 20	From junction Trail #523 to District boundary	1.0	-	Reconstruction
87	Pine	Emerald Lake	528	T.37N., R.5W., S.4 T.38N., R.5W., S.17, 20, 29, and 32	From junction of Trail #523 to upper end of Emerald Lake	6.0	-	Reconstruction
87	Pine	Granite Lake	540	T.39N., R.4W., S.13 and 14	From junction Trail #523 to lake	0.5	-	Reconstruction
88	Animas	Columbine Pass	504	T.39N., R.8W., S.24 and 25 T.39N., R.7W., S.29, 30, 32, 33, 34, and 35	From Needleton to Columbine Pass	10.0	-	Reconstruction
88	Animas	Corral Draw	521	T.39N., R.10W., S.21, 28, 33, and 34 T.38N., R.10W., S.2 and 3	From Highline Trail to Hermosa Creek	5.0	-	Reconstruction
88	Animas	Spud Lake	661	T.39N., R.8W.	From Lime Creek Road to Potato Lake	1.0	-	Reconstruction
88	Dolores	Calico	6491	T.38N., R.12W., S.3	Mile Post 2.0 to Mile Post 6.0	4.0	-	Reconstruction
88	Mancos	Little Bear	609	T.38N., R.11W. T.38N., R.12W.	Rough Canyon to Bear Creek	4.0	-	Reconstruction
88	Pagosa	Coldwater	597(1)	T.37N., R.4W., S.18 and 19 T.37N., R.4½W., S.11, 12, and 13 T.37N., R.5W., S.13, and 24	Road #631 to County line	4.0	-	Construction/Re- construction
88	Pine	Endlich Mesa	534	T.38N., R.7W., S.14, 23, 24, 25, and 26	From Sheridan Mountain to City Reservoir. From Lake Marie to mesa	2.0	-	Relocation
88	Pine	Flint Creek	527	T.38N., R.5W., S.4, 9, 10, 14, and 15 T.39N., R.5W., S.28, 29, and 33	From junction Trail #523 to junction of Trail #564	10.0	-	Reconstruction
89	Animas	Highline	520	T.37N., R.11W., S.1, 2, 11, 12, 13, 14, 23, and 24 T.38N., R.11W., S.1, 12, 13, 24, 25, 36 T.39N., R.10W., S.4, 9, 10, 15, 16, 20, 21, 29, and 31 T.40N., R.10W., S.23, 24, 26, 27, 28, and 32	From Kennebec Pass to Hermosa Park Road	18.7	-	Reconstruction

Ten-Year Trail Construction And Reconstruction Summary

Fiscal Year	District	Trail Name	Trail Number	Location Twp., Rge., Sec.	Termini	Length	ROW Status	Proposed Development
89	Dolores	Lizard Head	637	T.41N., R.10W., S.23	From Trail #424 to Forest boundary	6.0	-	Reconstruction
89	Dolores	Priest Gulch	6453	T.39N., R.12W., S.12	Priest Gulch Campground to Calico Trail	6.0	-	Reconstruction
89	Pagosa	Continental Divide	813.1	T.37N., R.2E., S.13 and 24	Trail #567 to Elwood Pass	10.0	-	Reconstruction
90	Animas	Salt Creek	559	T.37N., R.3E., S.19, 20, 21, 27, 28 and 34	From Highline Trail to Hermosa Creek	5.4	-	Reconstruction
90	Dolores	Bear Creek	6071	T.38N., R.10W., S.7, 8, 15, 16, and 17	Colo. Highway #145 to District boundary	2.0	1 Case	Reconstruction
90	Dolores	Burnett	641	T.39N., R.11W., S.3	T.40N., R.11W., S.32	2.5	2 Cases	Reconstruction
90	Dolores	Highline Trail	No #	T.40N., R.10W., S.26	Black Hawk Mountain to T.40N., R.10W., S.10	5.0	-	Reconstruction
90	Dolores	Horse Creek	626	T.40N., R.11W., S.20	Private land to Calico Trail	1.5	2 Cases	Reconstruction
90	Mancos	West Mancos	621	T.37N., R.13W.	Road #561 to Trail #617	3.0	-	Reconstruction
90	Pagosa	Dead Man	590	T.38N., R.2W., S.10, 15, 22, 23, and 24	Trail #589 to Trail #580.1	3.0	-	New construction
90	Pagosa	Hossick Lake	602	T.39N., R.4W., S.29	Trail #585 To Hossick Lake	4.8	-	Reconstruction
90	Pagosa	Indian Creek	588(1)	T.39N., R.3W., S.25 and 26	Trail #587 to Palisade Meadows	.7	-	Reconstruction
				T.38N., R.3W., S.2, 3, and 4		3.5	-	Reconstruction
90	Pagosa	Opal Lake Trail	660	T.34N., R.2E., S.5, 8, and 9	Opal Lake Road to Opal Lake	1.5	-	New Construction
90	Pine	Pine River	523	T.39N., R.4W., S.5, 7, 8, 18, and 19	From Granite Peaks Guard Station to Weminuche Pass	6.7	-	Reconstruction
				T.39½N., R.4W., S.4 and 5				
				T.40N., R.4W., S.32				

APPENDIX E

PROPOSED MINERALS WITHDRAWALS AND REVOCATIONS

PROPOSED MINERALS WITHDRAWALS AND REVOCATIONS

In response to a growing concern over the lack of statutory guidance on withdrawals, Congress established a comprehensive withdrawal procedure in Section 204 of the "Federal Land Policy and Management Act of 1976 (FLPMA)." The term "withdrawal" is defined in Section 103(j) of FLPMA to mean:

"withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area or reserving the area for a particular public purpose or program;..."

Congress also repealed the implied authority of the President to make withdrawals, under which the majority of our existing withdrawals were made. FLPMA grants the Secretary of Interior broad withdrawal authority, including the explicit authority to withdraw land from the operation of the mining and mineral leasing laws. FLPMA also directs the Secretary of Interior to review all existing withdrawals within fifteen (15) years (or by 1991) to determine if they should be continued, modified, or revoked.

The San Juan National Forest's existing withdrawals were originally made over the years to protect campgrounds, picnic grounds, ranger stations, fire lookout sites, archaeological areas, travel influence zones, rest stop sites, observation sites, research natural areas, and other sites. Some of these sites were never built and some have been dismantled, rehabilitated, and returned to the Forest land base.

Detailed reviews of all Forest Service withdrawals on the Forest will be conducted in Fiscal Years 1984 and 1985. Appropriate recommendations for the continuance, modification, or revocation of the existing withdrawals, as well as new withdrawals, will be made to the Bureau of Land Management. The review schedule, prepared in accordance with review criteria established by Bureau of Land Management Regulations and the U.S.F.S. Regional Office Working Tool Policy Memo dated December 17, 1979, follows.

Existing Withdrawals with Improvements Proposed for Continuance or Modification Review in FY 1984

Name	Location	Acres	Public Land Order #
Square Top Administrative Site	T35N. R1E.	110	Sec. of Int. 6/11/08
East Fork Campground	T36N. R1E.	80	1494

Existing Withdrawals with Improvements Proposed for Continuance or
Modification Review in FY 1984 (Continued)

Name	Location	Acres	Public Land Order #
East Fork Campground	T36N. R1E.	40	2553
San Juan Overlook	T37N. R1E.	40	3051
Treasure Falls Rest Stop	T37N. R1E.	40	3051
West Fork Campground	T37N. R1E.	110	1494
Wolf Creek Campground	T37N. R1E.	40	1510
Wolf Creek Campground Enlargement	T37N. R1E.	60	2314
Silver Falls Guard Station Administrative Site	T37N. R2E.	70	1494
Eight Mile Mesa Lookout Administrative Site	T34N. R1W.	20	1494
Treasure Guard Station Administrative Site	T36N. R1W.	120	1494
Turkey Springs Guard Station Administrative Site	T35N. R3W.	50	Sec. of Int. 1/9/1890
Bridge Administrative Site	T37N. R3W.	110	Sec. of Int. 5/16/08
Bridge Campground Site	T37N. R3W.	320	1943
Piedra Campground and Guard Station	T37N. R3W.	160	1510
Cimarron Campground	T38N. R3W.	160	2553
Teal Picnic Ground	T38N. R3W.	160	3051
Williams Creek Campground	T38N. R3W.	80	1494
Williams Creek Campground Addition	T38N. R3W.	169	3051
Williams Lake Recreation Area	T38N. R3W.	201	2314

Existing Withdrawals with Improvements Proposed for Continuance or
Modification Review in FY 1984 (Continued)

Name	Location	Acres	Public Land Order #
Chimney Rock Lookout Administrative Site	South of Ute Line T34N. R4W.	90	1494
Chimney Rock Archeological Area	South of Ute Line T34N. R4W.	1350	4819
Lower Piedra Campground	North of Ute Line T34N. R4W.	120	1494
Devil Mountain Lookout Administrative Site	T35N. R4W.	20	3051
First Fork Campground	T36N. R4W.	90	2553
First Fork Campground Addition	T36N. R4W.	80	3051
Granite Peaks Guard Station Administrative Site	T39N. R4W.	160	1494
Yellow Jacket Guard Station Administrative Site	North of Ute Line T34N. R5W.	151	1494
Graham Creek Campground Site	T36N. R6W.	200	1873
North Canyon Campground	T36N. R6W.	240	1873
Old Timers Campground Site	T36N. R6W.	160	1873
Pine Point Campground Site	T36N. R6W.	200	1873
Vallecito Dam Area	T36N. R6W.	229	1873
Pine River Campground	T37N. R6W.	20	1510
Vallecito Campground	T37N. R6W.	320	1510
Vallecito Campground	T37N. R6W.	42	2314
Vallecito Guard Station	T37N. R6W.	68	1628
Transfer Park Campground	T37N. R7W.	120	1494

Existing Withdrawals with Improvements Proposed for Continuance or
Modification Review in FY 1984 (Continued)

Name	Location	Acres	Public Land Order #
Transfer Park Campground Addition	T37N. R7W.	120	4579
U. S. Highway 550 Travel Influence Zone	T37N. R8W., R9W. T38N. R9W. T39N. R8W., R9W. T40N. R8W.	4,382	C-21667
Andrews Lake Campground	T40N. R8W.	20	3051
Little Molas Lake Campground	T40N. R8W.	20	3051
South Mineral Campground	T41N. R8W.	29	2302
South Mineral Campground Addition	T41N. R8W.	9	3051
Animas Ranger Station Administrative Site	T36N. R9W.	200	1494
Haviland Lake Recreation Area	T38N. R9W.	160	2922
Columbine (Hamers Lake) Administrative Site	T39N. R9W.	65	Sec. of Int. 10/5/07
Columbine Ranger Station and Purgatory Campground	T39N. R9W.	53	2314
Sig Creek Campground	T39N. R9W.	20	1494
Lizard Head Pass Rest Stop	T41N. R9W., R10W.	120	2922
Junction Creek Picnic Ground	T36N. R10W.	60	2553
Junction Creek Picnic Ground Addition	T36N. R10W.	20	4579
Cayton Creek Campground	T41N. R10W.	130	3051
Cherry Creek Campground	T36N. R11W.	42	1510
Burro Bridge Campground	T41N. R11W.	70	1494

Existing Withdrawals with Improvements Proposed for Continuance or
Modification Review in FY 1984 (Continued)

Name	Location	Acres	Public Land Order #
Dunton Guard Station Administrative Site	T41N. R11W.	160	1494
Thompson Park Campground	T36N. R12W.	90	2553
Transfer Picnic Ground	T37N. R12W.	80	1494
Priest Gulch Campground	T38N. R12W.	20	1510
Emerson Campground	T39N. R13W.	97	1494
Mavreeso Campground	T39N. R13W.	70	1494
Mavreeso Campground Addition	T39N. R13W.	20	3051
West Dolores Campground	T39N. R13W.	60	1494
Forks Campground	T39N. R14W.	20	1510
Cottonwood Guard Station Administrative Site	T40N. R14W.	90	1494
Narraguinnep Research Natural Area	T39N. R17W. T40N. R16W., R17W.	2890	1960
Glade Guard Station Administrative Site	T41N. R16W.	60	1494
Dolores River Canyon Overlook Picnic Ground	T41N. R17W.	50	1494
Total 68		Acres 15,027	

Existing Withdrawals Proposed for Revocation or Modification Analysis in
FY 1985

Name	Location	Acres	Public Land Order #
Camp Creek Rest Stop	T37N. R1E.	40	3051
San Juan Administrative Site	T36N. R1W.	120	Sec. of Int. 5/5/08
San Juan Campground	T36N. R1W.	50	4579
Crystal Campground	T38N. R3W.	160	3051
Lake View Campground	T38N. R3W.	163	2922
Little Brook Campground	T38N. R3W.	160	2553
Snowshoe Campground	T38N. R3W.	160	2922
Devil Creek Camp and Picnic Ground	South of Ute Line T34N. R4W.	176	4579
Long Meadow Campground	T38N. R4W.	120	2922
Wickerson Mountain Campground	T35N. R6W.	40	3051
Aspen Point Picnic Ground	T36N. R6W.	227	1873
East Mountain Campground	T36N. R6W.	207	1873
Sawmill Point Boating Site	T36N. R6W.	240	1873
Wallace Lake Picnic Ground	T36N. R8W.	202	4579
Boyce Lake Campground	T39N. R8W., R9W.	140	3051
Columbine Campground	T39N. R9W.	10	1494
East Columbine Campground	T39N. R9W.	31	1494
East Hermosa Campground	T39N. R9W.	80	4579
Montelores Campground	T39N. R11W.	200	4579
Hay Camp Administrative Site	T38N. R14W.	40	Sec. of Int. 4/27/09
Total 20	Acres 2,566		

Proposed New Withdrawals

Name	Location	Acres
Williams Creek - White Fir Research Natural Area	T38N. R3W.	420
Remainder of designated Chimney Rock Archaeological Area	South of Ute line T34N. R4W.	1810
Total 2		Acres 2230

APPENDIX F

LANDS CAPABLE, AVAILABLE AND SUITABLE
FOR TIMBER PRODUCTION AND INVENTORY SUMMARY
FOR THE FOREST PLAN

LANDS CAPABLE, AVAILABLE AND SUITABLE FOR TIMBER
PRODUCTION AND INVENTORY SUMMARY FOR THE FOREST PLAN

This appendix summarizes the land classifications associated with the Plan which were developed in Chapters III and IV of the EIS, summarizes the allowable sale quantity for the Plan and presents a comparison with the 1976 Timber Management Plan. The following are used to display this information.

- Table 1 shows the lands suitable for timber production by Management Area.
- Figure 1 is a graphic display of the land classification associated with this Plan.
- Table 2 is a summary of the timberland use classification and inventory for this Plan.
- Figure 2 is a graphic display of the allowable sale quantity, base sale schedule and long-term sustained yield.
- Table 3 displays the allowable sale quantity and annual Resources Planning Act (RPA) target.
- Table 4 compares the annual allowable sale quantity for Fiscal Years 1981 through 1990 with the programmed sale statement for Fiscal Year 1981.
- Table 5 compares the Forest Plan suitable acres by type and stand size class with the 1976 Timber Management Plan commercial forest acres.
- Table 6 is a summary of changes in timber resource inventory and management direction from the 1976 Timber Management Plan.
- Table 7 is a detailed comparison of inventory and management data with the 1976 Timber Management Plan.

It will be noted in the tables that there are occasionally large differences between the 1976 Timber Management Plan commercial forest acres and the suitable forest acres of this Plan. The 1976 Timber Management Plan identified the maximum harvest that could be planned to achieve the optimum perpetual sustained-yield harvesting level attainable with intensive forestry on regulated areas considering the productivity of the land, conventional logging technology, standard cultural treatments, and intra-relationships with other resources and the environment. Lands were classified as standard, special or marginal. This Plan determines an allowable sale quantity based on the suitability of land for timber production considering the availability of the land production.

Non-stocked lands are an example of this difference in land classification. This Plan has determined that substantial parts of the non-stocked lands are not suitable for timber production; this determination along with a revised acreage computation explains why the non-stocked areas of this Plan are four percent of the non-stocked commercial forest land of the previous Plan.

The latest Forest Inventory (Stage I Survey) was completed in 1968. Both the 1976 Timber Management Plan and this Plan utilize per acre data from this inventory. The area of the Forest by vegetation type was recomputed, using remote sensing techniques, for this Plan.

Some data elements are not available. In certain cases this is because the Forest Survey was not organized to provide this data. In some cases the areas reclassification for this Plan did not measure the data. The area reclassification for this Plan measured area by type and stand size class but did not measure area by productivity class. Where data is not available the tables are marked with N/A.

TABLE 1

Lands Suitable for Timber Production by Management Area

Category	Management Area ^{1/}
Suitable For Timber Production	2A ("G ₁ " portion), 2B, 4B, 5B, 6B ("B" portion), 7C, 7E, 9B ("P ₁ " portion)
Not Suitable For Timber Production	1A, 1B, 2A ("G ₂ " and "R" portions), 3A, 6B ("A" portion), 8A, 8B, 8C, 8D, 9A, 9B ("P ₂ " portion), 10A, 10C, 10D
Suitablility For Timber Production Varies. Management is consistent with adjacent management areas.	1D

^{1/} See the Alternative H alternative map in the back of the final EIS for designated portions included in parenthesis following management areas.

FIGURE 1

Lands Suitable For Timber Production (Proposed Forest Plan)

Preferred Alternative

Acres

Total Forested Acres on the San Juan National Forest
(the total forested area accounts for 72 percent of
the total 1,867,782 acres on the San Juan National
Forest)

1,346,562

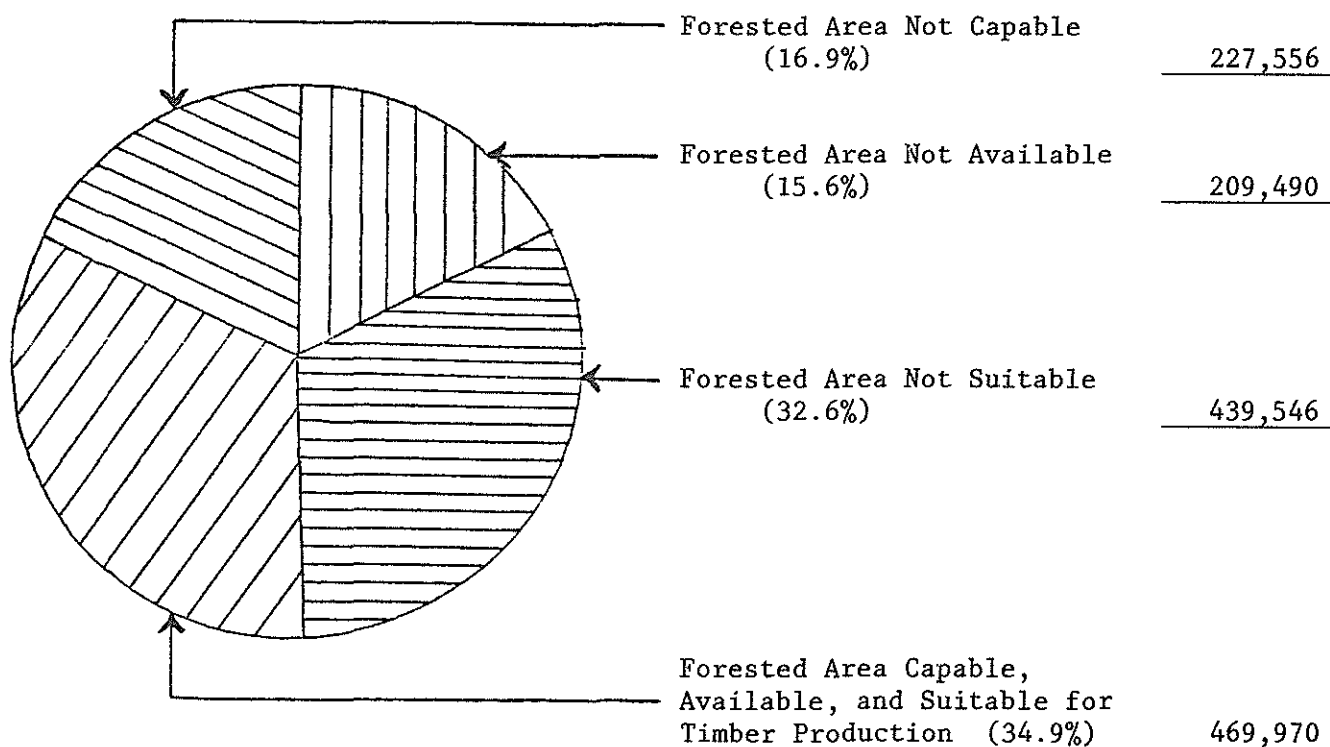


TABLE 2

Timber Land Use Classification and Inventory Summary (San Juan National Forest)

	Areas	Volume		Total Annual Net Growth		Total Annual Mortality	
		All Products 5.0" + dbh	Large Roundwood local scale	All Products 5.0" + dbh	Large Roundwood local scale	All Products 5.0 + dbh	Large Roundwood local scale
	Acres	Thousand Cunits	Million Board Feet	Thousand Cunits	Million Board Feet	Thousand Cunits	Million Board Feet
Water	2,252						
Non-Forest	518,968						
Forest Land	1,346,562						
A. Not Capable	227,566						
B. Not Available							
Productive Reserved	158,203	5,144.10	2,068.33	48.40	20.83	31.50	13.13
Productive Deferred	51,287	1,141.70	392.52	16.80	5.54	5.30	2.02
C. Not Suited for Timber Production							
Technologically Not Suited	85,911	459.35	162.14	7.57	3.05	0.56	0.22
Incompatible Preferred Uses	353,635	9,507.00	3,685.22	122.60	51.25	50.80	21.04
D. Suitable for Timber Production (CFL)	469,970	10,347.24	3,945.58	149.57	62.30	46.80	19.23
National Forest Total	1,867,782	26,599.39	10,253.79	344.94	142.97	134.96	55.64

FIGURE 2

Allowable Sale Quantity, Base Sale Schedule and Long-Term Sustained Yield

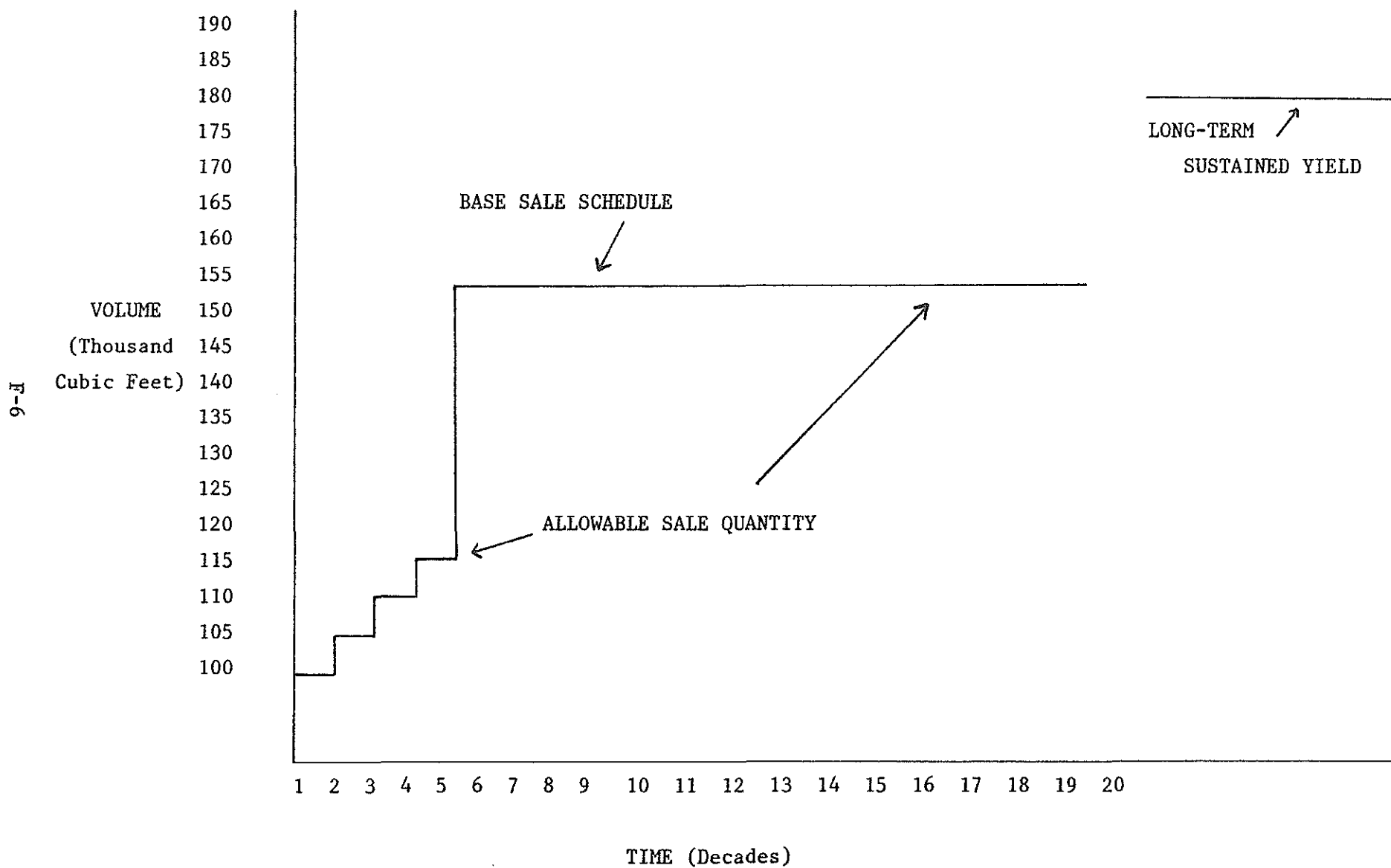


TABLE 3

Allowable Sale Quantity and Annual RPA Target Statement

Total Program Component and Activity	Periodic Allowable Sale Quantity (Effective FY 81-90; From 10-1-80 to 9-30-89)						Annual RPA Target <u>2/</u> (Effective FY 81-85)						
	Area	Large Roundwood (ST)		Products <u>1/</u>		Total Volume	Area	Large Roundwood (ST)		Products <u>1/</u>		Total Volume	
	Acres	Million Board Feet	Million Cubic Feet	Million Cubic Feet	Thousand Cords	Million Cubic Feet	Acres	Million Board Feet	Million Cubic Feet	Million Cubic Feet	Thousand Cords	Million Cubic Feet	Million <u>3/</u> Board Feet
Full Yield													
Clearcut	10,980	32	8	1	12.5	9	2,160	19.2	4.1	0.4	5.1	4.5	19.4
Seed Cut	12,040	85	21	1	12.5	22	135	.5	.1	-	-	.1	.5
Selection	5,850	23	6	1	12.5	7	-					-	
Intermediate	-	-	-										
Preparatory Cut	15,110	61	15	1	12.5	16	720	4.2	.9	.1	1.2	1.0	4.8
Removal	580	2											
Commercial Thinning	58,320	174	44	2	25.0	46	3,310	10.3	2.2	.3	3.7	2.5	12.0
Sub Total-Full Yield	102,870	377	94	6	75.0	46	6,325	34.2	7.3	.8	10.0	8.1	39.2
Regulated Allowable Sale Quantity	102,870	377	94	6	75.0	100	6,325	34.3	7.3	.8	10.0	8.1	39.2
Salvage from Suitable Lands	-						-						
Total	102,870	377	94	6	75.0	100	6,325	34.2	7.3	.8	10.0	8.1	39.2

1/ Convertible products converted to thousand board feet at two cords per thousand for control purposes based on board feet.

2/ RPA targets other than total million board feet are not assigned to the Forest. Other values shown are from the RPA Alternative E.

3/ Includes Convertible Products.

TABLE 4

Annual Allowable Sale Quantity and Programmed Sale Statement

Total Program Component and Activity	Annual Allowable Sale Quantity (From 10-1-80 to 9-30-89)						Programmed Sale Statement (Fiscal Year 1981)						
	Area	Large Roundwood (ST)		Products		Total Volume	Area	Large Roundwood (ST)		Products		Total Volume	
	Acres	Million Board Feet	Million Cubic Feet	Million Cubic Feet	Cords	Million Cubic Feet	Acres	Million Board Feet	Million Cubic Feet	Million Cubic Feet	Cords	Million Cubic Feet	Million ^{1/} Board Feet
Full Yield													
Clearcut	1,098	3.2	0.8	.1	1,250	0.9	400	2.0	0.4	0.1	1,000	0.5	2.5
Seed Cut	1,204	8.5	2.1	.1	1,250	2.2	-	-	-	-	-	-	-
Selection	585	2.3	0.6	.1	1,250	0.7	-	-	-	-	-	-	-
Prepatory Cut	1,611	6.1	1.5	.1	1,250	1.6	8,000	19.5	4.4	-	-	4.4	19.5
Removal	58	0.2	0.1	-	-	-	-	-	-	-	-	-	-
Intermediate Cut	5,832	17.4	4.4	.2	2,500	4.6	3,600	3.5	0.8			0.8	3.5
Sub-total - Full Yield	10,387	37.7	9.4	.6	7,500	10.0	12,000	25.0	5.6			5.7	25.5
Regulated Allowable Sale Quantity	10,387	37.7	9.4	.6	7,500	10.0	9,120	40.0	9.0	1.0	12,500	10.0	46.2
Salvage from Suitable Lands							4,000	7.0	1.6	-	-	1.6	7.0
Total Allowable Sale Quantity	10,387	37.7	9.4	.6	7,500	10.0	16,000	32.0	7.2	0.1	1,000	7.3	32.5
Programmed from Non-Suitable (Non-chargeable) - None													

^{1/} Includes convertible products.

TABLE 5

Comparison Of Forest Plan Suitable Acres With 1976 Timber Management Plan

Type and Stand Size Class	1976 Timber Management Plan		Percent Change + or -
	Regulated Commercial Forest Acres	Forest Plan Suitable Acres	
Ponderosa pine			
Non-stocked	48,500	-0-	--
Seed-sap	--	-0-	--
Poletimber	--	-0-	--
Sawtimber	<u>152,600</u>	<u>111,460</u>	-27
Total	201,100	111,460	-45
Spruce-fir			
Non-stocked	10,400	7,360	-29
Seed-sap	12,200	14,190	+16
Poletimber	9,000	2,140	-76
Sawtimber	<u>208,400</u>	<u>125,500</u>	-40
Total	240,100	149,190	-38
Douglas-fir			
Non-stocked	4,900	1,150	-77
Seed-sap	1,800	390	-78
Poletimber	24,500	1,480	-94
Sawtimber	<u>137,100</u>	<u>71,280</u>	-48
Total	168,300	74,300	-56
Aspen			
Non-stocked	-0-	-0-	--
Seed-sap	4,000	18,970	+474
Poletimber	11,300	-0-	--
Sawtimber	<u>7,400</u>	<u>116,050</u> ^{1/}	+1568 ^{1/}
Total	22,700	135,020	+595
Total All	632,100	469,970	-26

^{1/} This Plan combined aspen pole timber with the aspen sawtimber class.

TABLE 6

Summary of Changes in Timber Resource Inventory and Management Direction from the 1976 Timber Management Plan

		P r e v i o u s P l a n		T h i s P l a n		A c r e s C h a n g e
Area		Acres		Acres		
Net National Forest		1,850,300		1,867,782		+17,482
All Forest Land		1,559,700		1,346,562		-213,138
Productive Deferred		151,200		51,287		-99,913
Productive Reserved		139,000		158,203		+19,203
Commercial Forest		1,098,300		Productive Available Suitable		-198,784
Standard	200,600			469,970		
Special	12,100			Not Suitable		
Marginal	419,400			439,546		
Unregulated	466,200					
Volume - CFL		Total	Per Acre	Total	Per Acre	
Growing Stock		2160 MMCF	2000 CF	920 MMCF	2000 CF	-1240
Salvable Dead		17 MMCF	16 CF	7 MMCF	16 CF	-10
Total		2177 MMCF	2016 CF	927 MMCF	2016 CF	-1250
Old Growth Sawtimber		N/A 1/ MMBF		N/A MMBF		N/A
Other Sawtimber		7552 MMBF	11200 BF	4735 MMBF	11200 BF	-2817
Total		7552 MMBF		4735 MMBF		-2817
Growth/Mortality		(Regulated CFL)		(Suitable CFL)		
Growing Stock						
Annual Net Growth		17 MMCF	27 CF	13 MMCF	27 CF	-4
Annual Mortality		6 MMCF	9 CF	4 MMCF	9 CF	-2
Annual Gross Growth		23 MMCF	36 CF	17 MMCF	36 CF	-6
Allowable Sale Quantity/Potential Yield						
Sawtimber		27 MMCF	800 CF	9 MMCF	1000 CF	-18
Products		3 MMCF		1 MMCF	100 CF	-2
Total		20 MMCF		10 MMCF	1100 CF	-20
Sawtimber (Local)		117 MMBF	3300 BF	40 MMBF	4400 BF	
Plan Accomplishment - Average Annual Basis						
	Planned Volume MMBF	Planned Acres	Accomplished Acres	Planned FY 81-90 Volume MMBF	Planned FY 81-90 Acres	RPA Target
Regeneration Harvest						*
Clearcut	5.5	400	380	3.2	1098	
Seed Cut				8.5	1204	
Selection				2.3	585	
Intermediate						*
Preparatory Cut	5.0	1230		6.1	1511	
Removal	1.8	360				
Commercial Thinning	18.8	8140	6630	17.6	5832	
Salvage						
Reforestation	Total Needs Acres			Total Needs Planned Acres		
Backlog		4570	4200		1200	
Other		1700	120		0	*

*RPA Target Not Assigned to Forest

1/ N/A = Not available data.

2/ From page 87 proposed Regional Plan.

TABLE 7

Detailed Comparison of Inventory and Management Data with 1976 Timber Management Plan (Previous Plan)

	Previous Plan (Acres)	This Plan (Acres)	Percent <u>1</u> / Change
Area Summary			
Net National Forest	1,850,300	1,867,782	+ 1
Total Forested Land	1,559,700	1,346,562	-14
Total Productive Forest Land	1,388,500	1,119,006 <u>2</u> /	-19
Total Comm. Forest Land	1,098,300	887,385 <u>3</u> /	-19
Total Non-Productive	171,200	227,556 <u>4</u> /	+33
Total Non-Forest and Water	290,600	521,220	+79
Productive Forest Land Not Available			
Productive Reserved	139,000	158,203	+14
Productive Deferred	151,200	51,287	-66
Productive Admin. Withdrawal	-0-	-0-	
Commercial Forest Land			
	Previous Plan Acres	This Plan Suitable and Available Productive Forest Land By Use Category	Acres
Standard	200,600	Travel Routes	30,933
Special (by Reason)	12,100	Range Management Emphasis	122,318
Water Influence	N/A <u>5</u> /	Semi-primitive Motorized Recreation	29,530
Travel Influence	N/A	Wildlife Habitat Emphasis	8,318
		All other	278,871
Marginal (by Reason)			
Access - Road Development	153,200		
Logging Methods	220,500		
Markets	-0-		
Reforestation	45,700		
Unregulated	466,200		
Total	1,098,300		469,970
Productive Forest Land - Not Suited for Timber Production			
	Previous Plan (Acres)	This Plan (Acres)	Percent <u>1</u> / Change
Technologically Not Suited			
Regeneration	-0-	85,911	
Other Basis for Productive Forest Lands Not Suited for Timber Production			
Unregulated	466,200		
- By Reason		353,635	-23
Range Management	N/A	25,066	
Semi-primitive Motorized Recreation	N/A	19,823	
Semi-primitive Non-motorized Recreation	N/A	191,783	
Developed Winter Sports Areas	N/A	8,795	
Custodial Management	N/A	83,004	
Riparian Areas	N/A	25,162	
Timber Size Class			
	Commercial Forest Acres	Suitable Forest Acres	Percent Change <u>1</u> /
Sawtimber	672,600	424,282	-37
Poletimber	148,900	3,621	-98
Seed/Sapling	40,200	33,552	-16
Understocked	N/A	N/A	
Non-stocked	236,600	8,515	-96
Total	1,098,300	469,970	-57

Detailed Comparison of Inventory and Management Data with 1976 Timber Management Plan (Previous Plan)

F-12

TABLE 7 (Continued)

Comparison of Inventory and Management Data with 1976 Timber Management Plan (Previous Plan)

	Previous Plan on Commercial Forest Land		This Plan on Suitable Forest Land		Percent Change <u>1/</u> Total Volume
	Total Volume	Per Acre	Total Volume	Per Acre	
<hr/>					
Growth and Mortality on CFL					
Annual Net Growth MMCF	30	.0000+	13	.0000+	-57
Annual Mortality MMCF	10	.0000+	4	.0000+	-60
Annual Gross Growth MMCF	40	.0000+	17	.0000+	-57
Annual Growing Stock Growth By Stand Size					
Old Growth Sawtimber MMCF		N/A			
Younger Sawtimber MMCF	30	.0000+	19	.0000+	-36
Poletimber MMCF	7	.0000+	1	.0000+	-85
Seed/Sapling MMCF	1	.0000+	1	.0000+	
Sawtimber MMBF (Local)	136	.0002	85	.0002	-37
Annual Growing Stock Mortality by Stand Size					
Old Growth Sawtimber 150+ MMCF					
Young Growth Sawtimber					
Less than 150 MMCF	8	.0000+	5	.0000+	-37
Poletimber MMCF	1	.0000+	1	.0000+	
Seed/Saplings MMCF	1	.0000+	1	.0000+	
Sawtimber MMBF (Local)	47	.0000+	30	.0000+	-36
Annual Growth by Forest Type					
Douglas-fir MMCF	6	.0000+	2	.0000+	-66
Ponderosa MMCF	6	.0000+	2	.0000+	-66
Spruce-fir MMCF	18	.0000+	8	.0000+	-56
Aspen MMCF	8	.0000+	5	.0000+	-37
Annual Mortality by Forest Type					
Douglas-fir MMCF	2	.0000+	1	.0000+	-50
Ponderosa MMCF	1	.0000+	1	.0000+	
Spruce-fir MMCF	6	.0000+	3	.0000+	-50
Aspen MMCF	8	.0000+	5	.0000+	-37

^{1/} Percent Change from Previous Plan^{2/} Capable Forest Land^{3/} Available Productive Forest Land^{4/} Not Capable Forest Land^{5/} N/A = Not Available Data

APPENDIX G

ROADS AND TRAILS TO REMAIN OPEN TO
THE PUBLIC FOR MOTORIZED USE
WITHIN MANAGEMENT AREA 3A

ROADS AND TRAILS TO REMAIN OPEN TO THE PUBLIC FOR MOTORIZED USE
WITHIN MANAGEMENT AREA 3A

Management Area 3A is managed with emphasis on semi-primitive, non-motorized recreation opportunities. The following roads and trails will remain open to the public for motorized use as access corridor routes through the management area. These routes may be closed seasonally to prevent resource damage.

Road or Trail Name	Number	Termini
Bear Creek Trail	607	Dolores River to the Grindstone Trail.
Calico Trail	649	Trailhead on U.S. Highway #145 to Road #535
East Fork Road	667	Forest Boundary to Elwood Pass.
Gold Run North Trail	618	Road #561 to Bear Creek Trail.
Grindstone Trail	608	Bear Creek Trail to Highline Trail.
Hermosa Trail	515	From Road #576 to Road #578.
Hillside Drive Road	436	U.S. Highway #145 to dead end.
Little Bear Creek Trail	658	Bear Creek Trail to Grindstone Trail.
Lower Hermosa Road	576	From private land, T.37N., R.9W., Sec. 34 to dead end.
Tenderfoot Trail	644	Trailhead on U.S. Highway #145 to Calico Peak Trail.

APPENDIX H

STANDARD AND SPECIAL STIPULATIONS FOR MINERAL LEASING

STANDARD AND SPECIAL STIPULATIONS FOR MINERALS LEASING

The attached stipulations (Bureau of Land Management Form 3109-3: Stipulation For Lands Under Jurisdiction of Department of Agriculture, and Forest Service Region 2 Supplements) are designed to be attached to mineral leases, permits, and licenses, to ensure the protection of surface resources and values of National Forest System lands during and after mineral activities.

The following "standard" stipulations will be attached to all mineral leases, licenses, and permits issued for National Forest System lands:

- BLM Form 3109-3
- Forest Service R-2 Supplement D: Surface Disturbance Stipulation.

The following stipulations will be attached as appropriate to mineral leases, licenses, and permits issued for National Forest System lands:

- Forest Service R-2 Supplement A: Further Planning Area Stipulation
- Forest Service R-2 Supplement B: Classified Area Stipulation
- Forest Service R-2 Supplement C: Limited Surface Use Stipulation
- Forest Service R-2 Supplement E: Wild and Scenic Rivers System Stipulation
- Forest Service R-2 Supplement F: Surface Use Stipulation
- Forest Service R-2 Supplement G: Activity Coordination Stipulation
- Forest Service R-2 Supplement H: Conditional No Surface Disturbance Stipulation

The following stipulations will be attached as appropriate to all mineral leases and permits issued for wildernesses and Wilderness Study Areas:

- Forest Service R-2 Supplement R: Wilderness Oil, Gas, Geothermal Stipulation
- Forest Service R-2 Supplement S: Wilderness Minable Minerals Stipulation

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE *

The lands embraced in this lease or permit being under the jurisdiction of the Secretary of Agriculture, the lessee or permittee hereby agrees:

(1) To conduct all operations authorized by this lease or permit with due regard for good land management, not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at the rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; unless otherwise authorized by the Secretary of Agriculture, not to drill any well, carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the lands within 200 feet of any building standing on the lands and whenever required, in writing, by the authorized representative of the Secretary of Agriculture to fence or fill all sump holes, ditches, and other excavations, remove or cover all debris, and so far as reasonably possible, restore the surface of the lands to their former condition, including the removal of structures as and if required, and when required by such representative to bury all pipelines below plow depth.

(2) To do all in his power to prevent and suppress forest, brush, or grass fires on the lands and in their vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee or permittee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the lands at the disposal of any authorized officer of the Department of Agriculture for the purpose of fighting forest, brush, or grass fires on or originating on the lands or on adjacent areas or caused by the negligence of the lessee or permittee or his employees, contractors, subcontractors and employees of contractors and subcontractors, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of

Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character: *Provided*, that if the lessee or permittee, his employees, contractors, subcontractors, or employees of contractors or subcontractors, caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee or permittee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors within the area involved except at established camps, and shall enforce this prohibition by all means within his power: *Provided*, that the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, campfires may be built for the purpose of heating lunches and where, at the option of the lessee or permittee, smoking may be permitted.

The lessee or permittee shall not burn rubbish, trash, or other inflammable materials *except* with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such a manner as to scatter inflammable materials on the surface of the lands during the forest, brush, or grass fire season, *except* as authorized to do so or on areas approved by such representative.

The lessee or permittee shall build or construct such fire lines or do such clearing on the lands as the authorized representative of the Secretary of Agriculture decides is essential for forest, brush, and grass fire prevention which is or may be necessitated by the

* This form of stipulation may be used in connection with leases and permits issued under the Acts of February 25, 1920, as amended (30 U.S.C. 181 *et seq.*); August 7, 1947 (30 U.S.C. 351 *et seq.*); February 7, 1927, as amended (30 U.S.C. 281 *et seq.*); April 17, 1926, as

amended (30 U.S.C. 271 *et seq.*); June 28, 1944 (58 Stat. 483-485); September 1, 1949 (30 U.S.C. 192c); June 30, 1950 (16 U.S.C. 508b); or under the authority of any of the Acts cited in Section 402 of the President's Reorganization Plan No. 3 of 1946 (5 U.S.C. 133y-16, Note).

exercise of the privileges authorized by this lease or permit, and shall maintain such fire tools at his headquarters or at the appropriate location on the lands as are deemed necessary by such representative.

(3) In the location, design, construction, and maintenance of all authorized works, buildings, plants, waterways, roads, telegraph or telephone lines, pipelines, reservoirs, tanks, pumping stations, or other structures or clearance, the lessee or permittee shall do all things reasonably necessary to prevent or reduce to the fullest extent scarring and erosion of the lands, pollution of the water resources and any damage to the watershed. Where construction, operation, or maintenance of any of the facilities on or connected with this lease or permit causes damage to the watershed or pollution of the water resources, the lessee or permittee agrees to repair such damage and to take such corrective measures to prevent further pollution or damage to the watershed as are deemed necessary by the authorized representative of the Secretary of Agriculture.

(4) If in the opinion of the authorized representative of the Secretary of Agriculture, the lands are valuable for watershed protection, the lessee or permittee shall provide for control of surface runoff and return the affected area to as productive condition as practicable.

(5) To pay the lessor or permitter or his tenant or the surface owner or his tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's or permittee's operations hereunder; to save and hold the lessor or permitter or the surface owner or their tenants harmless from all damage or claims for damage to persons or property resulting from the lessee's or permittee's operations under this lease or permit.

(6) To recognize existing uses and commitments, in the form of Department of Agriculture grazing, timber cutting, and special use permits, water developments, ditch, road, trail, pipeline, telephone line, and fence rights-of-way and other similar improvements, and to conduct his operations so as to interfere as little as possible with the rights and privileges granted by these permits or with other existing uses.

(7) To install and maintain cattle guards to prevent the passage of livestock in any openings made in fences by the lessee or permittee or his contractors to provide access to the lands covered by this lease or permit for automotive and other equipment.

(8) If lessee or permittee shall construct any camp on the lands, such camp shall be located at a place approved by the authorized representative of the Secretary of Agriculture, and such representative shall have authority to require that such camp be kept in a neat and sanitary condition.

(9) To comply with all federally-approved rules and regulations of the Secretary of Health, Education, and Welfare governing the emission of pollutants into the air from activities which are embraced in this lease or permit.

(10) To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease or permit.

(11) Unless otherwise authorized, prior to the beginning of operations to appoint and maintain at all times during the term of this lease or permit a local agent upon whom may be served written orders or notices respecting matters contained in this stipulation, and to inform the authorized representative of the Secretary of Agriculture, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee or permittee shall immediately so inform the said representative.

(12) To address all matters relating to this stipulation to

at

who is the authorized representative of the Secretary of Agriculture, or to such other representative as may from time to time, be designated, provided that such designation shall be in writing and be delivered to the lessee or permittee or his agent.

(Signature of Lessee)

FURTHER PLANNING AREA STIPULATION

The following described lands embraced in this lease/permit/license were identified in the Roadless Area Review and Evaluation (RARE II) decision document as requiring further planning:

Future planning may identify all or part of these lands as suitable for wilderness, and the lands so identified may ultimately be designated as Wilderness. Information made available to the Forest Service regarding discoveries of mineral deposits on these lands will be considered in the planning process and may be key factors in the land allocation.

This clause shall become inoperative in the event this area is determined as not suitable for wilderness.

Any terms of this lease/permit/license to the contrary notwithstanding, the following terms shall apply to the above described lands:

1. Only exploration activities for the purposes of discovering and disclosing the extent of mineral deposits is allowed, until development and production operations are specifically concurred in by the Forest Service based on a land management plan and/or a specific environmental analysis of an operating plan.
2. Exploration plans must be specifically approved by the Geological Survey and concurred in by the Forest Service. Plans for geophysical exploration must be approved by the Forest Service. The Forest Service will agree to reasonable access for conducting necessary exploration operations.
3. Any lands covered by this lease/permit/license which Congress designates as Wilderness shall become subject to the provisions of the applicable Wilderness legislation, and the Secretary of Agriculture's regulations and Forest Service policies pertaining thereto.
4. The lessee/permittee/licensee will be responsible as he deems necessary to protect his interest, for initiating requests to the Department of the Interior for suspension of lease/permit/license terms, rental, or minimum royalties. The Forest Service does not intend that the inclusion of this stipulation be construed as a basis to deny a request for suspension.
5. Until these lands are allocated to non-wilderness purposes, by a land management plan or specific environmental analysis and decision, mineral-related operations are subject to the following terms:
 - (a) Construction of access ways and operation sites will not be permitted in areas of extremely high environmental sensitivity where such construction would cause serious and irreparable environmental damage.
 - (b) Access way construction will be permitted only where existing access ways are inadequate or other methods of access are impractical.
 - (c) Access ways will be built to a standard no higher than required for passage of equipment and support personnel, and to protect surface resources.
 - (d) The access ways and other areas of operation will be reclaimed, as soon as they have served their purpose, to a condition as near as practical to the surface condition existing prior to the authorized use of the lands.

This stipulation is hereby accepted.

Date

H-5

Signature

CLASSIFIED AREA STIPULATION
(36 CFR 251.23 and 294)

The use of the lands within the external boundaries of the _____
Classified Area as described below, for the purpose of
this license/permit/lease will be restricted to the following unless otherwise
specifically agreed to by the Forest Service in the Operation Plan:

- (a) To conduct prospecting and exploratory activities upon said lands for the purpose of locating and determining the existence of possible mineral resources beneath said lands by the use of such instruments and non-motorized equipment as may be carried by hand or on horseback. No explosives shall be used nor shall any wheeled, mechanized or motorized vehicles or equipment be used or transported upon the surface of said lands for such purposes.
- (b) Operation shall be authorized to drill for, produce, and remove minerals from said lands by methods which will avoid invasion or disturbance of the surface.
- (c) This stipulation is in effect for the following described lands:

Licensee/Permittee/Lessee

Note: The applicant is encouraged to contact the District Ranger for further information regarding the restrictive nature of this stipulation.

LIMITED SURFACE USE STIPULATION

The licensee/permittee/lessee is given notice that all or portions of the license/permit/lease area contain special values, or are needed for special purposes, and require special attention to prevent damage to surface resources. Surface use or occupancy within such areas will be subject to limitations and will be authorized only when it is demonstrated to be essential to operations. Operating plans for these areas must provide for such measures as are satisfactory to the Forest Service for protection of the described special values and existing or planned uses. The operator must have advance approval of the authorized officers of the Minerals Management Service and the Forest Service for surface uses involving significant disturbance to surface resources, including wildlife. After the Forest Service has been advised of the proposed surface use on these lands, and on request of the operator, the Forest Service will furnish further data on such areas, which now include but are not limited to:

Reason for Restriction, and duration: (if less than full-time designate months)

Licensee/Permittee/Lessee

Note: The applicant is encouraged to contact the District Ranger for further information regarding the restrictive nature of this stipulation.

(2/82)

SURFACE DISTURBANCE STIPULATION

1. Notwithstanding any provision of this license/permit/lease to the contrary, any drilling, construction or other operation on the lands covered by this license/permit/lease that will disturb the surface thereof or otherwise affect the environment (hereinafter called "surface disturbing operation") conducted by licensee/permittee/lessee shall be subject, as set forth in this stipulation, to the prior approval of such operation by the Bureau of Land Management (BLM) in consultation with the Forest Service, and to such reasonable conditions not inconsistent with the purposes for which this license/permit/lease is issued, as the authorized officer may require to protect the surface of these lands and the environment.
2. Prior to entry upon the land, or the disturbance of the surface thereof, for drilling or other purposes, the licensee/permittee/lessee shall submit for approval the appropriate number of copies of a map and explanation of the nature of the anticipated activity and surface disturbance to the Bureau of Land Management and the Forest Service Officer, as shown in Item 12 of the BLM Form 3109-3. The plan of operation must assure adequate protection of drainages, water bodies, springs, or fish and wildlife habitat, steep slopes or fragile soil.
3. An environmental analysis will be made by the Bureau of Land Management, in consultation with the Forest Service, for the purpose of insuring proper protection of the surface, the natural resources, the environment, existing improvements, and for assuring timely reclamation of disturbed lands.

Upon completion of said environmental analysis, the authorized officer of the Bureau of Land Management shall notify the licensee/permittee/lessee of the conditions, if any, to which the proposed surface disturbing operations will be subject.

Said conditions may relate to any of the following:

- (a) The location of drilling or other exploratory or developmental operations or the manner in which they are to be conducted.
 - (b) The types of vehicles that may be used and the areas in which they may be used.
 - (c) The manner or location in which improvements such as roads, buildings, pipelines, or other improvements are to be constructed.
4. The licensee/permittee/lessee agrees that during periods of adverse conditions due to climatic factors such as thawing, heavy rains, or flooding, all activities creating irreparable or extensive damage, as determined by the Forest Service, will be suspended or the plan of operation modified and agreed upon.

5. PROTECTION OF CULTURAL AND PALEONTOLOGICAL RESOURCES

- (a) The Forest Service is responsible for assuring that the area to be disturbed on this license/permit/lease is inventoried to determine the presence of cultural resources and to specify those cultural resources requiring protection and/or mitigation measures to be undertaken by the operator.

Unless notified to the contrary by the Forest Service, the operator may, at his discretion and cost, conduct the inventory on the lands to be disturbed. This intensive inventory must be done by, or under the supervision of, a qualified archeologist approved by the Forest Service. Upon review of the inventory report, the Forest Service will specify those cultural resources requiring protection and/or mitigation measures to be undertaken by the operator. All costs of protection and salvage of cultural resource values will be borne by the operator and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.

- (b) The operator shall bring to the attention of the Forest Service and the Bureau of Land Management, significant paleontological values encountered in areas to be disturbed, for evaluation and for instructions as to the appropriate action to be followed by the operator.
- (c) The operator shall immediately cease operations in areas in which any antiquities or other objects of historic or scientific interest are discovered and bring the discovery to the attention of the Forest Service and the authorized officer of the Bureau of Land Management. Any such discoveries shall be left intact until the operator is permitted to proceed by the authorized officer of the Bureau of Land Management.

6. PROTECTION OF ENDANGERED OR THREATENED SPECIES

The Forest Service is responsible for assuring that the area to be disturbed is examined, prior to undertaking any ground disturbing activities on lands covered by this license/permit/lease, to determine effects upon any plant or animal species listed or proposed for listing as endangered or threatened, or their habitats. The findings of this examination may result in some restrictions to the operator's plans or even disallow any use and occupancy that would detrimentally affect any of the endangered or threatened plant or animal species.

The operator may, at his discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by the Forest Service. An acceptable report must be provided to the Forest Service identifying the anticipated effects of the proposed action on endangered species or their habitat.

Licensee/Permittee/Lessee

(6/83)

WILD AND SCENIC RIVERS SYSTEM STIPULATIONS

This stipulation applies to National Forest System lands adjacent to the _____ River, under study for possible inclusion in the National Wild and Scenic Rivers System (82 Stat. 906, as amended).

1. The licensee/permittee/lessee may not use, occupy, or disturb any surface portion of the license/permit/lease application area described in this stipulation without prior specific authorization of the Forest Service while the Congress is considering inclusion of the River into the National Wild and Scenic River System.
 - a. If Congress adds the River to the National Wild and Scenic River System, the Forest Service will prepare a management plan which will specify the particular controls on the lands described below.
 - b. If by the date prescribed by Section 7b of the Wild and Scenic River Act (82 Stat. 906, as amended) or possible amendments, the Congress has not added the River to the National Wild and Scenic River System, the area will be used according to a National Forest Land Resources Management Plan which may specify particular controls or special requirements for mineral development on the license/permit/lease area.
2. This stipulation is in effect for the following described lands:

Licensee/Permittee/Lessee

Note: The applicant should know that there is at this time no assurance that use, occupancy, or disturbance of the surface of the above described land can ever be permitted.

(6/7S)

SURFACE USE STIPULATION

Surface use or occupancy that would cause significant surface disturbance is not authorized for the lands described below. This does not apply to casual or other uses which do not significantly disturb surface resources. The operator must have advance approval of the authorized officers of the Geological Survey and the Forest Service for any surface uses related to lease operations.

Reason for restriction:

Lessee/Licensee/Permittee

ACTIVITY COORDINATION STIPULATION

This lease includes lands within _____
_____ which has resource values sensitive to high
levels of activity. In order to minimize impacts to these resources, special
conditions, such as unitization prior to approval of operations and/or limitations
to spread surface disturbance activities over time and space may be required prior
to approval and commencement of any operations on the lease.

This stipulation is in effect for the following described lands.

Reason for Restriction:

Licensee/Permittee/Lessee

NOTE: The applicant is encouraged to contact the Forest Supervisor for further
information regarding the restrictive nature of this stipulation.

(2/82)

CONDITIONAL NO SURFACE DISTURBANCE STIPULATION

The prospective licensee/permittee/lessee is given notice that parts of the lands described are affected by the following conditions:

- | | <u>Check as Applies</u> |
|---|-------------------------|
| - Slopes steeper than _____ percent.
(40 percent, classified lands; 60 percent unclassified lands) | _____ |
| - High erosion hazard. | _____ |
| - High hazard for mass slope failure. | _____ |
| - Threatened or endangered wildlife or plant species, as follows: | |
| -- Activities will not be permitted that will jeopardize the survival or recovery of Federally listed T&E species. | _____ |
| -- Activities will not be permitted that are likely to adversely modify or destroy critical habitat or essential habitat of Federally listed T&E species, and will not be permitted to intrude upon the animal or plant itself. | _____ |
| -- Activities may or may not be permitted to occur upon identified habitat of an animal or plant listed by the State as threatened or endangered or by the Regional Forester as needing special management to prevent the need for Federal listing or the species as threatened or endangered; activities will not be permitted to intrude upon the animal or plant itself. | _____ |
| - Low visual absorption capacity requiring special measures for mitigation. | _____ |

Should the prospective licensee/permittee/lessee accept this contract, this document is his acknowledgement that surface disturbance, including occupancy and use of the surface of those parts of the lands affected by the above-described conditions, will be authorized only if an operating plan can be devised that will provide for the surface resource protection required due to the above-described conditions. This stipulation is in effect for the following described lands:

Signature
(Licensee/Permittee/Lessee)

NOTE: The applicant is encouraged to contact the Forest Supervisor for further information regarding the restrictive nature of this stipulation before acceptance of this contract and the operator is encouraged to make the same contact well in advance of proposed operations.

WILDERNESS OIL, GAS, GEOTHERMAL STIPULATION

The lessee is given notice that all or portions of the lease area are within or have been recommended for addition to the National Wilderness Preservation System, or have been designated by Congress as Wilderness Study Areas. These lands contain special values, are needed for special purposes, and require special attention to prevent or control damage to surface resources and wilderness character. Any surface use or occupancy of these National Forest System lands shall be subject to special operating restrictions designed to prevent or control adverse impacts on the wilderness character and to restore, as near as practicable, the surface of the disturbed lands as soon as they are no longer needed for oil, gas, or geothermal exploration and development operations.

This stipulation applies to the following described lands:

Legal Description by Section, Township, Range and/or
Metes and Bounds Description as Necessary

Name of Area _____

Any terms of this lease to the contrary notwithstanding, the following terms shall apply to the above-described lands:

1. Geophysical investigations will be performed prior to submission of an Application for Permit to Drill an exploratory well. (Geophysical investigations will be authorized by a Forest Service Special Use Permit.)
2. Surface disturbing activities, including exploratory drilling, on the leased lands will not be authorized until the Minerals Management Service determines that the lessee's geophysical investigation data indicates that there is a reasonable expectation of finding oil and gas or geothermal resources in the area proposed for drilling.
3. All access for operations within the above-described lands related to exploration, including drilling, shall be conducted by non-motorized ground and/or by airlift methods. The staging site shall be outside the above-described lands and must be approved by the Federal land managing agency should such site be on Federally-owned lands. Routes and times of air travel over the above-described lands must have Forest Service approval. Also, exploratory drilling will be authorized only after the lessee submits detailed plans for development of ground-surface access to the drill site should a commercial oil, gas or geothermal discovery be made. These plans must show how adverse impacts on the wilderness characteristics will be prevented or controlled and how the surface of the disturbed lands is to be restored, as near as practicable, as soon as the lands are no longer needed for the purposes of this lease.
4. When an operating plan contains all of the measures necessary for occupancy, use, protection, and restoration of the wilderness values, it will be jointly approved by the Forest Service and the Minerals Management Service.
5. In the event that the Congress returns any of the lands described above to non-wilderness management, the conditions of these stipulations with respect to such lands are automatically rescinded and other stipulations appropriate to control operations for the protection of surface resources will be imposed.

This stipulation is hereby accepted.

(Date)

(Lessee)

Note: The applicant is encourage to contact the Forest Supervisor for further information regarding the restrictive nature of this stipulation before acceptance of this lease.

(2/82)

WILDERNESS MINABLE MINERALS STIPULATION

The prospecting permittee or lessee is given notice that all or portions of the permit/lease area are within or have been recommended for addition to the National Wilderness Preservation System, or have been designated by Congress as a Wilderness Study Area. These lands contain special values, are needed for special purposes and require special attention to prevent or control damage to surface resources and wilderness character. Any surface use or occupancy shall be subject to special operating restrictions designed to prevent or control adverse impacts on the wilderness character and to restore, as near as practicable, the surface of the disturbed lands as soon as they are no longer needed for the purposes of this permit or lease.

This stipulation applies to the following described lands:

Legal Description by Section, Township, Range, and/or
Metes and Bounds Description as Necessary

Name of Area _____

Any terms of this permit/lease to the contrary notwithstanding, the following shall apply to the above-described lands:

1. Operations under prospecting permit or lease.

a. When an operating plan contains all of the necessary provisions to prevent or control adverse impacts and to restore, as near as practicable, the surface of the disturbed lands as soon as the lands have served the purposes of this permit/lease, the plan will be jointly approved by the Minerals Management Service and the Forest Service.

b. Access ways using the ground surface, and their construction, will be permitted only when other methods of access are not feasible.

c. Ground-surface access ways and their construction, and operation sites other than the mine itself, will not be permitted in areas of extremely high environmental sensitivity.

d. Ground-surface access ways will be built to a standard no higher than required for safe passage of equipment, products, and personnel, and to protect surface resources.

2. Operations under prospecting permit.

a. Initial access for prospecting operations, including drilling, shall be conducted by non-motorized ground and/or by airlift methods. The staging site shall be outside the above-described lands and must be approved by the Federal land managing agency should such site be on Federally-owned lands. Routes and times of air travel over the above-described lands must have Forest Service approval.

b. Upon confirmation by the Minerals Management Service of the discovery of a potentially commercially valuable deposit that would justify construction of ground-surface access for further exploratory and development operations:

(1) The permittee, before construction of ground-surface access can be approved, must submit detailed plans showing where and how such access will be developed; and

(2) Such plans must, to the extent possible, provide that the access route and method be the same as that which will be used for further development and production of the deposit.

3. In the event that the Congress returns any of the lands described above to non-wilderness management, the conditions of these stipulations with respect to such lands are automatically rescinded and other stipulations appropriate to control operations for the protection of surface resources will be imposed.

This stipulation is hereby accepted.

(Date)

(Permittee/Lessee)

Note: The applicant is encouraged to contact the Forest Supervisor for further information regarding the restrictive nature of this stipulation before acceptance of this permit or lease.

APPENDIX I

FIRE MANAGEMENT ANALYSIS

FIRE MANAGEMENT ANALYSIS

The Fire Management Analysis was developed in response to specific requests for improved evaluation of all fire management expenditures from Congress. For example, when the Senate Appropriations Committee established fiscal year 1979 Forest Fire Protection funding, it said, "The Forest Service should conduct a cost-benefit analysis of both presuppression and suppression activities and base its fiscal year 1980 budget request on its fundings."

The analysis considers past fire history on the Forest, including acres burned, fire weather information, budgeted forest fire protection (FFP) dollars, forest fire fighting (FFF) dollars spent, and both the dollar and non-dollar resource value losses experienced. The analysis and planning process is described in the Fire Management Analysis and Planning Handbook (FSH 5109.19).

A Level I and Level II Fire Management Analysis of the Forest was made in 1980, which indicated that the current level of funding (fiscal year 1979) and fire management program was the cost-effective level (CEL) at that time. A new analysis was run in 1983 as a part of the Forest Planning Process.

Fire Management Analysis Level I is an analysis of the management situation. The analysis uses information describing the current situation and inventories; current and historical fire and weather information; and program costs. Fire Management Analysis Level II is an evaluation of Fire Program options and program mixes. This process was used to find the most cost-efficient program.

A summary of the results obtained from the Level II Analysis follows.

TABLE 1

Results of Level II Fire Management Analysis

Option	Total FFP +			FFF Costs + Resource Loss =			1/ Non-Dollar Value	Acres Burned
	FFP			Costs		Total		
A -20% CEL	113,000			80,000	8,000	201,000	-96	203
B CEL	141,000			54,000	3,000	198,000	-24	112
C +20% CEL	169,000			49,000	3,000	221,000	-20	95

1/ Non-dollar Value - a weighting of the non-dollar fire effects of a fire program option on such elements as air quality, visual experiences, wilderness and cultural resources. Used to assist in evaluating how well the program option meets overall management objectives.

The Forest was segregated into five fire management zones (FMAZ) for the analysis, with most fires occurring in three of the zones.

The preferred (CEL) option utilizes local forces for initial attack, except an air tanker from Grand Junction was required for dispatches at Fire Intensity Level 4 in two of the zones. The local forces used include Forest personnel, both permanent and temporary employees, as well as assistance from local Bureau of Land Management, Bureau of Indian Affairs, National Park Service, and volunteer fire departments.

Table 2 shows the record of the San Juan National Forest fire program for the period 1971-1980.

TABLE 2

Historical Fire Program Data

Year	Total FFP Budget (Thousand Dollars)	Suppression (Thousand Dollars)	Total (Thousand Dollars)	Total Area Burned	Total Number of Fires
1971	72	23	95	56	125
1972	121	32	153	42	112
1973	121	39	160	29	48
1974	158	115	273	418	156
1975	216	141	357	30	70
1976	142	61	203	83	88
1977	153	149	302	168	129
1978	140	69	209	76	78
1979	135	42	177	65	54
1980	135	58	193	151	58
Total	1,393	729	2,122	1,118	918
Annual Average	139.3	72.9	212.2	111.8	91.8

The historical losses due to wildfire (112 acres/year) are acceptable when compared with the total area protected (1,867,000 acres). The 1983 analysis confirmed the current level of protection against wildfire losses is the most cost-effective level of protection. Significant decreases in budgeted forest fire protection dollars (prevention, detection, suppression and fuels management) represented by option A, would result in a significant increase in the acres burned, and a corresponding increase in losses expected, both dollar and non-dollar.

An increase of 20 percent in the budgeted forest fire protection dollars represented by option C would result in a 15 percent reduction in acres burned, but with a 10 percent increase in total dollar cost. Resource dollar value losses would not be reduced and there would be no significant change in non-dollar value resulting.

It is expected the present levels of FFP budget, suppression cost (FFF) and total area burned will continue on into the future through the Forest planning period.

Chart 1 is included to display graphically the findings of the 1983 analysis.

CHART 1 FIRE MANAGEMENT ANALYSIS REPRESENTING THE COST EFFECTIVE LEVEL

